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The American Artisan
AND HARDWARE RECORD

55. No. 19. CHICAGO, MAY 9, 1908. $2.00 Per Year.

TURN BUCKLES

A full line of Bolts, Bolt Ends, Rivets, Lag Screw, Nuts, Washers and Carriage Hardware.

COLUMBUS BOLT WORKS, Columbus, O.

IN THE FRONT RANK FOR 25 YEARS
"AMERICAN SEAL"
ELASTIC OIL ROOFING CEMENT
STOVE PUTTY and ASBESTOS
FURNACE CEMENT

and the superior quality of these goods is still universally recognized.

THE WM. CONNORS PAINT MFG. COMPANY
MAKERS
TROY, N. Y.

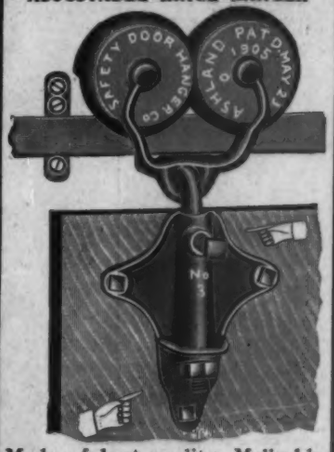
Western Agent
FRIEDLEY-VOSHARDT CO.
194-204 Mather Street, Chicago, Ill.

Southwestern Agent
STOCKHOFF SUPPLY COMPANY
107 N. Main St., St. Louis, Mo.

TRYING to do business without advertising is like winking at a girl in the dark; you know what you are doing but nobody else does.

The Hardware Merchant who sells good goods
SELLS ORIGINAL
MATCHLESS
Floor Hinge, Jamb Hinges, and Hardware Specialties.
If your Jobber cannot furnish them, write us.
LAWSON MFG. CO
40 Dearborn St., Chicago, Ill.

WIZARD
ADJUSTABLE HINGE HANGER



Made of best quality Malleable Iron. The two sets of Steel Roller Bearings reduce friction and make an exceptionally easy running hanger. Lateral and Vertical adjustment. No special track required. *Ask your jobber or write us.*
SAFETY DOOR HANGER CO.
Manufacturers
Ashland, O., Hamilton, Ont., Can.

"NEVER-BREAK"
TRADE MARK

Catalog Free

"NEVER-BREAK"
STEEL SPIDERS, GRIDDLES AND KETTLES
WILL NOT
Scale Off like cheap enamel.
WILL NOT
Scorch or Burn like light fry pans and skillets.
WILL NOT
Absorb Grease or Flavors like cast iron.
THE AVERY STAMPING CO.
CLEVELAND, OHIO
Sole Manufacturers
"NEVER-BREAK" Goods.

BUY, SELL AND USE
FILES
bearing the Trade Mark
FILES OF QUALITY
DELTA
TRADE MARK DELTA
And Thus Eliminate All Chances
Manufactured by an independent organization; not connected with any trust in any form, shape or manner.
CARVER FILE CO., Philadelphia, Pa.

PULLMAN SASHBALANCES

Are you selling them?
IN USE EVERYWHERE
Send us your orders
PULLMAN MFG. COMPANY
SOPHIA STREET
ROCHSTER, N. Y., U S. A.

"APART" HONES
"COMFORT" RAZORS
The best hone and the best razor on the market. Made from the finest materials.

also a full line of Cutlery, Razor Strops and Hardware Specialties.
S. R. DROESCHER
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Features Common to All

Lift-Off Nickel
Lift-Out Fire Pots
Ransom Duplex Grates
All are Double Heaters
All are Five Flued

The Back of a 15-Inch Fire Pot

CINDERELLA BASE BURNER

(ANY STYLE)

Has about 10 square feet of radiation between the skirting and the Heat Collar.

Most 15-inch Fire Pot Base Burners have 5 square feet of radiation or less. Very few have as much as 6 square feet of radiation and still fewer as much as 7 square feet.

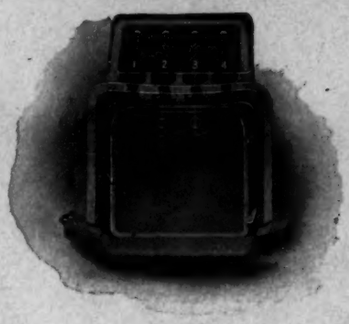
This is why people find Cinderella Base Burners so Powerful and so Economical.

Their price is less than is being asked for many stoves of ordinary construction. *For They are Made in Pittsburgh.* Over 51,500 in use.

STOVE & RANGE CO. OF PITTSBURGH

PITTSBURGH, PA.

Western Agency, W. D. SAGER
38 to 40 Michigan Street CHICAGO, ILL.



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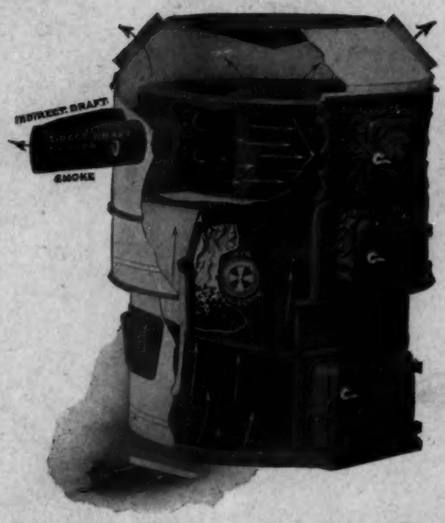
Base and Firepot!

All the Trade are Talking About It.

Write Us for Our Catalogue and Full Description.

We are now making our GAS TIGHT, STEEL DOME CRUSADER and ADMIRAL FURNACES With Our PATENT SQUARE POT and SQUARE BASE



BOYNTON'S SOFT COAL CRUSADER FURNACE

The BOYNTON FURNACE CO.

207-209 Water St.
NEW YORK

147-149 Lake St.
CHICAGO

A Wireless Message

From the

"MONITOR"

Would you have the present year bring you increased **Profits, Patronage and Prosperity?** Do you realize that the people are demanding better results from Hard Coal Base Burners?

The Monitor Front Flue Radiator

will do all of the above for you and your customers. A catalog and full information with prices for the asking.

The Monitor Stove & Range Co.

CINCINNATI

MORLEY BROS., Saginaw, Mich., distributors for the State of Michigan
GREAT WESTERN STOVE & REPAIR CO., Minneapolis, Minn., N.-W. distributors
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The Double Magazine Peoria

A heater that will stand the test—one that will satisfy the consumer in **every** particular is the heater that **you** want to sell.

The **Double Magazine Peoria** will burn Slack, Nut Soft Coal, Crushed Coke, Lignite or Hard Coal and feed automatically, the same as a base burner feeds hard coal. A mixture of Slack and Nut Soft Coal affords the best fuel for this heater and one winter's coal bill with these would cost the consumer $3.75—isn't this a good selling point when compared with 4 tons of hard coal at $32.00 for a base burner?

The **Double Magazine Peoria** has an automatic magazine feed that will not coke or burn up in the magazine; it has a down draft hot blast that burns all the gas and smoke in the combustion chamber; it has a fire pot with four **cored** air channels that will carry all gas, ash dust and smoke from the ash pit into the combustion chamber and burn them; it has a ball bearing shaking grate with a revolving center that will crush all slate and foreign substances and deposit them in the ash pan without disturbing the fire bed. It is a powerful base heater, caused by the circulation of air down through the double magazine into the ash pit and back into the combustion chamber through the air channels in the fire pot; it is easy and simple to operate; it is a fire keeper; it is made throughout of the very best material obtainable. The Colonial design of the stove, the impression of stability it bears and the urn all speak for themselves.

WILL THESE FACTS STAND THE TEST AND SATISFY THE CONSUMER?

Write for descriptive literature, agency proposition and prices with discounts.

The Culter & Proctor Stove Co.

200 Water Street, PEORIA, ILLINOIS

VAN'S

Patent Improved Wrought Steel Portable

RANGE

For Hotels, Restaurants, Public Institutions, Boarding Houses and Private Families. All kinds of Hotel Implements for culinary purposes. Manufactured and for sale by

The

JOHN VAN RANGE CO.

Southwest Corner 5th and Broadway

CINCINNATI - - OHIO

No. 4

MILLER'S COMBINATION COAL AND GAS RANGES

WITH GAS WATER HEATER AND ROLLING TOP OVEN SHELF OVER ALL

These Ranges are constructed so that if any accident should happen to either of the Ranges they can be taken apart, leaving one of them to cook on while the other is being repaired, which cannot be done with other combination Ranges as they are built in one piece and cannot be taken apart. The Gas Range in our combination is built of the same heavy material and to conform to the same general appearance as the Coal Range, giving us the strongest, neatest and most compact Range **in the world.**

The Gas Water Heater can be attached to either the side or the back of the Gas Range as desired.

THE WM. MILLER RANGE & FURNACE CO., POST OFFICE SQUARE, CINCINNATI, OHIO.

C. Bender, Ardmore, I. T., writes: "Please discontinue my ad., as I have found the place I wanted. THE AMERICAN ARTISAN surely is a great paper, as I have had letters from all over the country. I don't think I could get along without it."

CHAMPION
Interchangeable Range
IT'S NEW AND A WINNER

This is not a combination range, nor is it a coal and gas range bolted together, but it is an

Interchangeable Range

In ten seconds it can be changed from coal to gas or gas to coal without disconnecting a pipe or removing a bolt. In this respect it is a marvel and will be recognized at once by all progressive dealers as a range they want to handle because it fills a long felt want and will prove a big seller

This range is made fully up to the standard of CHAMPION quality.

It consumes less fuel than any other coal or gas range on the market.

There are many other superior points and we want you to **Write for our Catalog** which tells about them.

Champion Steel Range Co.

3950 W. 25th Street, CLEVELAND, OHIO

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GRAY'S PERFECT ELBOW PATTERNS.

On heavy blue print paper. From one inch to twenty inches; price $1.50, prepaid. From twenty inches to forty inches, price $1.50, prepaid. From one inch to forty inches, made in 2, 3, 4, 5, 6 7 and 8 pieces with 160 patterns and angle chart showing all angles and degrees of same gotten from 160 patterns, price $3.00, prepaid.

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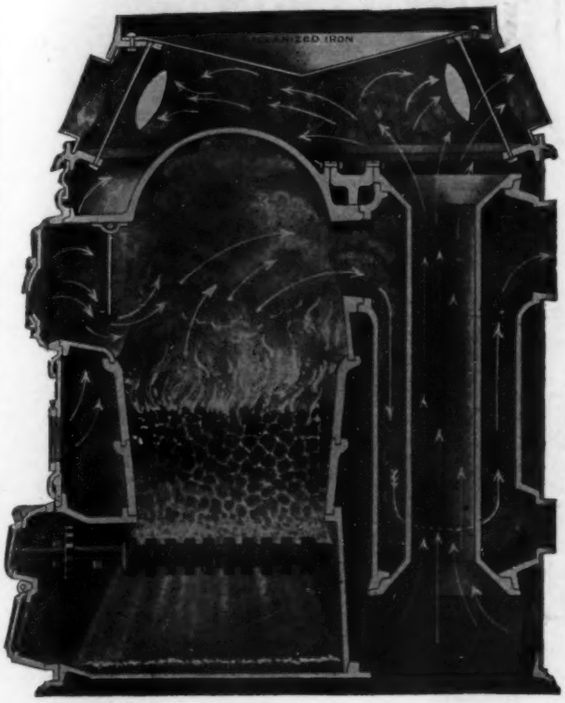


Shaded Sectional Cut

of the

"Low Down" Crown Warm Air Furnace

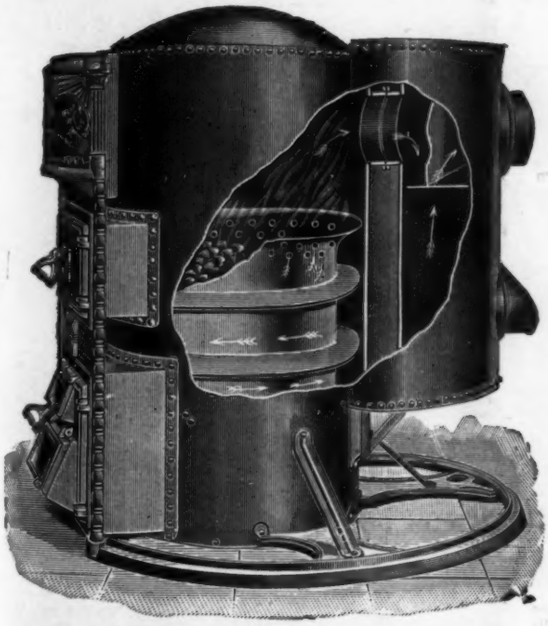
Designed to show the direction taken by the gases and warm air. Also the thickness and staunchness of its parts.

The March-Brownback Stove Co.

POTTSTOWN, PA.

Chicago Agency, JOHN KONTNY, 264 South Clinton Street.

If a Furnace is Wanted



which, for satisfactory service, durability and powerful heating capacity, can not be duplicated by any other furnace made, it is a

WEIR

ALL STEEL GAS AND SOOT CONSUMING FURNACE.

In construction—unapproachable.

In practical improvements—the latest.

Write for catalog to-day.

We have THE Furnace.

The Meyer Furnace Co., Peoria, Ill.

THREE ADVANTAGES

TO BE DERIVED FROM PURCHASING GREEN FURNACES

Our Location and Your Freight Rate. No need of waiting a week or two for your shipments from the East. No need of paying out your profit in freight charges. Des Moines is the center of nineteen railroads which leave the city in every direction and gives us transportation direct with single freight rate to almost every town in this state and the states surrounding. Your orders will reach us promptly, our shipments will reach you promptly. Why pay a heavy freight rate from eastern points when you can buy your furnaces from Des Moines and save freight charges? Why wait for shipments from the east when our goods will reach you in half the time.

Our Factory. Why do you prefer to place your orders with the large manufacturer? Because he carries a sufficiently large assortment to fill your orders promptly. We have the largest furnace factory west of the Mississippi river. We have a floor space of 42,540 square feet, equipped with machinery which is new, up-to-date, designed and built for manufacturing furnaces.

Our furnaces are built to burn the fuel used in the central and western states, deep ash pits, large fire bowls, long smoke travel, with all the modern improvements and conveniences—just what you have been looking for.

Our Working Force. The large manufacturer can give you a better article than the small manufacturer as he has men enough in his employ to allow each to become an expert at his particular work. Some of our men have been with us fifteen years. More than half have been with us five years. They have become experts at their work. Moulders are paid by the piece and year in and year out each man does the same work. Why not buy of the large manufacturer?

Write for catalogue and discounts.

GREEN FOUNDRY & FURNACE WORKS

Department A, DES MOINES, IOWA

STEEL CASING RINGS

Are Made to Conform to Individual Requirements in Every Respect

NEVER BREAK **CIRCLES PERFECT**

READY TO USE **INCREASE PROFITS**

THE WALWORTH RUN FOUNDRY CO., 27th St., S. W., Cleveland, O.

Makers of Fine Grey Iron Castings :: :: Mfrs. of Semi-Steel Registers

HELD TOGETHER BY ITS OWN WEIGHT

Not a bolt, screw or rivet is used in the construction of the "MUELLER" Double Radiator, All-Cast Furnace.

"MUELLER" FURNACES SELL

because their features appeal to people. The Deep Cup Joints used throughout the "MUELLER" line of heaters are self-packing, but as additional security they are packed with cement. Ample provision is made for expansion and contraction of castings.

Send for catalog and prices, also our agency proposition.

L. J. Mueller Furnace Company

Established 1857 **191 Reed Street, MILWAUKEE, WIS.**

Hub Gas Tight Furnace.

HUB GAS TIGHT FURNACE

Here is the Furnace with the **Greatest Radiating Surface Known** And it's absolutely Gas Tight. That's why we call it

THE HUB GAS TIGHT FURNACE

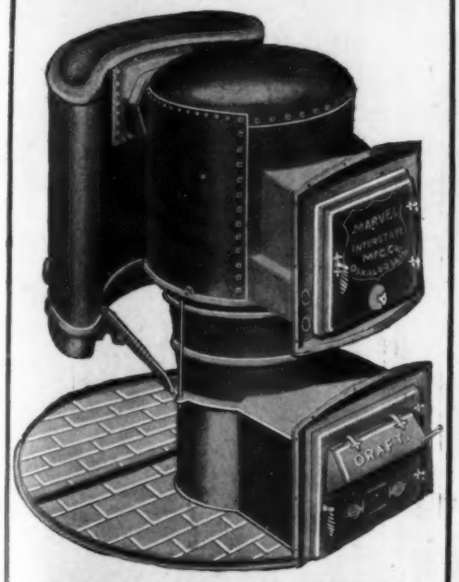
All the Joints are Horizontal Joints. **The Draft is Indirect.**

One or more of the heating sections can be piped direct to distant rooms, insuring positive heat delivery to any particular room.

We have an Attractive Booklet illustrating this heater, which will be sent upon request. "THE HUB" is the furnace to save coal bills.

SMITH & ANTHONY COMPANY, Makers

52 and 54 Union Street, BOSTON, Mass.



FURNACE WITH CAST FIRE POT.

800 MARVEL HEAT PRODUCERS Series

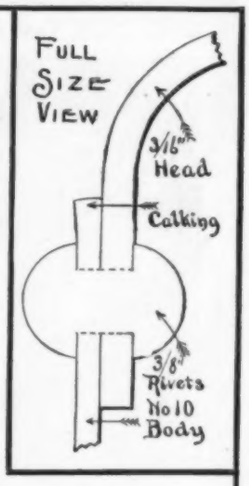
BETTER FURNACES

Large Powerful Heating Surfaces.

Two-Piece Cast Iron Pot.

Flat Dumping and Shaking Grate, or Marvel Triangular Bar Grate.

Large Feed Door. Well Made.



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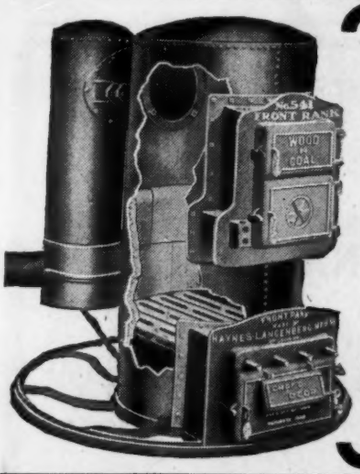


A Furnace That's Different!

You know as well as we do that almost all furnaces are alike in construction—and that your competitor can quote just as low a price as you.

With this FRONT RANK Furnace you can go after a prospective customer with a line of argument that is entirely different.

The FRONT RANK is made of heavy sheet armor plate, riveted like a boiler. It can't bulge apart, and it can't leak gas.

There are no "cup joints" in which the cement can shrivel up and allow gas to escape.

The FRONT RANK Furnace offers a mighty fine opportunity to one good dealer in each town.

Do you want our proposition?

HAYNES-LANGENBERG MFG. COMPANY

4045-57 Forest Park Blvd., ST. LOUIS

Gilt Edge Radium Furnace

An Economical Heater. A Perfect Worker and a Great Seller

In the **Gilt Edge Radium Furnace** the products of combustion are so completely utilized that no fuel is wasted—complete benefit is derived from every particle of heat, and every weakness common to most furnaces is eliminated.

This furnace is made to give complete satisfaction. Only the best materials are used in its construction. All parts subject to severe usage are entirely protected, and its operation is perfect. Burns both hard coal and block wood. Has always been a Great Seller.

Write for catalog.

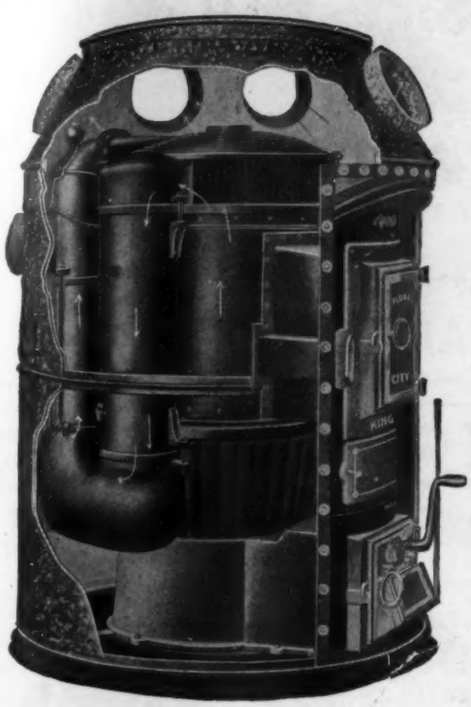
R. J. SCHWAB & SONS CO.

MILWAUKEE, WISCONSIN

CELLULAR OVERDRAFT FIREPOT

Found Only in Our Furnaces

THE BONNOT COMPANY ∴ CANTON, OHIO



One of the many styles in which

Floral City Furnaces

are made

Write for catalogue and prices. We can interest you.

Monroe Foundry & Furnace Co.
Monroe, Mich.

Economy, Cleanliness and Durability All Combined in the

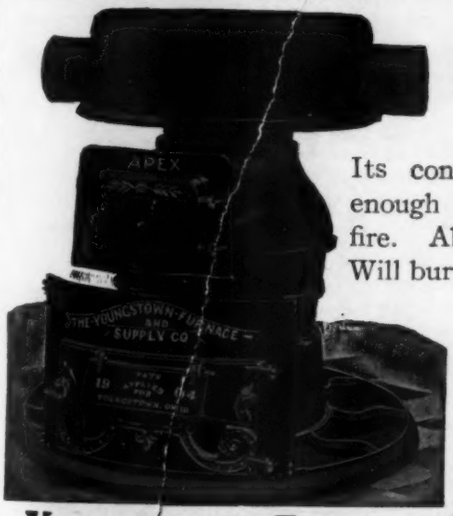
Moncrief
Warm Air Furnace

A few of the many good points of the MONCRIEF
- All Cast Iron
- Moncrief Duplex Grate
- Large Radiating Surface
- Top Return Flue
- Double Fire Pot
- Large Grate Surface

HENRY & SCHEIBLE CO.
825-29 Long Avenue, N. W.
CLEVELAND, O.

Western Sales Agent
J. C. KIMMEL, 3314 E. 15th St.
Kansas City, Mo.

The APEX Warm Air Furnace



is an extra heavy, durable furnace with a most powerful heating capacity. Its construction is strong enough to resist the fiercest fire. Absolutely gas tight. Will burn hard coal, soft coal or coke. Simple to to operate, economical and thoroughly efficient.

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Youngstown Furnace & Supply Co.
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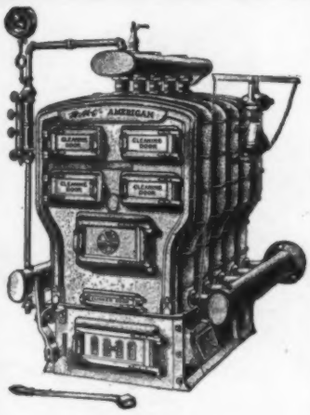
Rood & McIntyre, Kansas City, Mo., Southwestern Distributors



SPECIFY
Klymax Boilers
and
Kewanee Radiators

KLYMAX Boilers are built to meet the demand for a boiler of highest grade material and workmanship, combined with simplicity of construction and operation.

Manufactured by
Kellogg-Mackay-Cameron Co.
CHICAGO

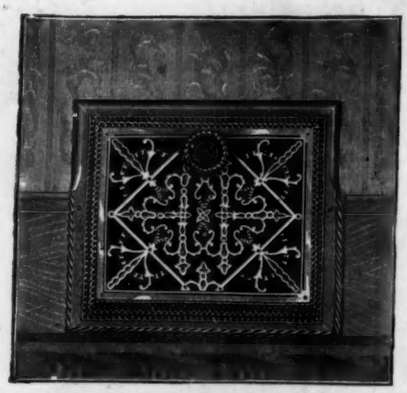
Write for Circulars and Terms

The Ideal Epworth Acetylene Generators

Are Ideal in construction, Ideal in light producing power, Ideal in giving out steady light, Ideal in selling qualities, Ideal in lighting Dwellings, Stores, Hotels, Churches and Towns. Acetylene light is the safest, best, cheapest, brightest, finest light in the world, when produced in the Ideal Epworth Generators.

Satisfaction Guaranteed. Agents Wanted.

IDEAL EPWORTH ACETYLENE CO., JOHNSTOWN, PA.
(Successors to Epworth Gas, Light & Heating Co., Waterloo, Iowa. WATERLOO, IOWA



Schwab Side Wall Register

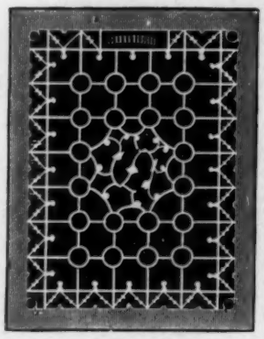
A factor in the Modern Method of heating a room which is a great improvement on the old fashioned floor register.

Schwab's Side Wall Registers are the Neatest in Design of Any on the Market

NOISELESS IN OPERATION. BEST IN CONSTRUCTION

In fact this is in all respects the one perfect side wall register. Write today for illustrated and descriptive catalog.

R. J. SCHWAB & SONS CO., MILWAUKEE, WISCONSIN



REGISTERS

NOT IN THE ASSOCIATION. OUR DISCOUNT 80 and 5%.

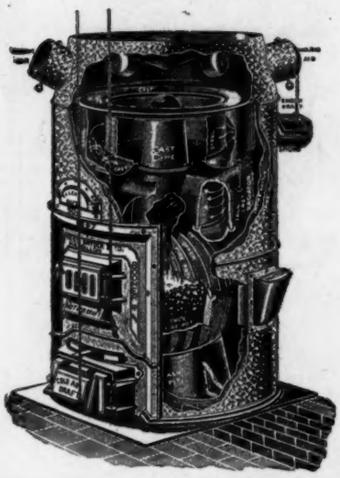
MAKERS OF ALL CAST WARM AIR REGISTERS, neat in design, and superior in finish, interchangeable with all first-class makes, and will wear a life-time.
Why buy the so-called Semi-Steel or Stamped Register? They are only imitations.
We are the largest makers of registers in the country. Our own foundry with molding capacity of 200 molders.
Get the Association's discount and compare it with ours. You will see how much we can save you.
We carry a large stock insuring prompt shipment.

STANDARD REGISTER COMPANY

Register Dept., Standard Foundry & Mfg. Co., CLEVELAND, OHIO

BOOMER FURNACES

Quickly Establish a Local Reputation



It is always a little hard to introduce an old Furnace in New Territory.

But the first BOOMER Furnace you sell will pave the way for an unlimited profitable furnace business.

It is likewise better to take an old, time-tried furnace like the BOOMER, and sell it in new territory, than to continue selling, or endeavoring to sell, a Furnace that does not "stand up" the way you would like to have it.

The BOOMER Furnace is one of those always-reliable, sure-to-give-satisfaction commodities that is a genuine pleasure to sell.

The BOOMER Agency, remember, has attractive inducements.

We'll gladly send you our Furnace catalogue upon request.

The HESS SNYDER COMPANY

Manufacturers MASSILLON, OHIO

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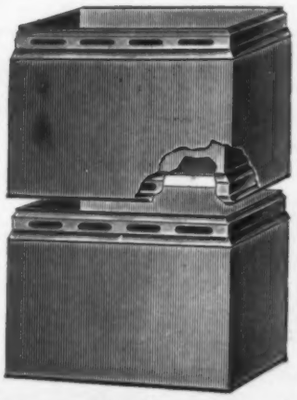

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ESTABLISHED 1880.

THE AMERICAN ARTISAN & HARDWARE RECORD

Representative of the Stove, Tin, Hardware, Heating and Ventilating Interests.

PUBLISHED EVERY SATURDAY.

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CHICAGO, MAY 9, 1908.

THAT confidence is fast being restored in the various branches of business enterprise throughout the country, is becoming more and more apparent with the dawn of each succeeding day. Optimism is supplanting pessimism, and a spirit of satisfaction is dissipating the cloud of anxiety which for a time threatened to work dire results. Stocks are going up in value and with this the hoards of money are being unlocked. The securities of American railroads and corporations are now said to be on a sounder basis than they have been within a quarter of a century.

A Sign of the Times.

THE American Railway Association, from reports of 158 railroads, notes a decrease in the number of idle cars since February of this year, the total number for the entire country and Canada having decreased from 314,992 cars on March 4, to 306,507 cars under date of April 1. The activity of railroad operations in any country is usually a good criterion as to the degree of prosperity a country enjoys, and depression or stimulation that may be felt in any or many lines of commerce is bound to assert itself in railroad circles.

The decrease in the number of idle cars referred to above was not continuous, the figures for March 18 presenting a more favorable total for the country, namely, 297,042 cars. Nor has the improvement been uniform for the various sections of the country. Thus roads in New England, in the central and far western states, as well as those in Canada, according to the latest report, had a larger number of surplus cars than during the first week in March. The number of coal, gondola and hopper cars (used in transporting mine products chiefly) reported idle on April 1, namely 120,669, was approximately 20,000 less than the number remaining idle in the early part of March, the number reported for the middle of April showing even a more favorable condition, slightly over 119,000 cars. This should serve to be good evidence that trade conditions are righting themselves and that the depression which attended the financial flurry of last fall is vanishing.

The Spiritual Side of Business Efforts.

IT MAY be argued that in view of the present day hustle and bustle in business, which has for its chief object the furthering of individual interests through twentieth century competitive methods, that there can be no spiritual side to any business endeavors, for the mere reason that one enters into business solely for the profit to be derived from it. The individual who will condescend to unfair methods in business for personal aggrandisement will, of course, ridicule the idea that such a phase does exist, but the scrupulous, conscientious business man, whether he may be about to reach the pinnacle of success or whether he continues plodding along day after day making an honest though perhaps frugal livelihood, will invariably acknowledge that there is a spiritual aspect to commercial pursuits which is essential to success. Naturally, honesty will be cited as the one great attribute necessary to the maintenance of this spiritual ideal. Honesty unquestionably constitutes the most essential feature, but there are many issues tributary to it which may be easily lost sight of by any man in pursuit of business.

It is a simple matter to say to a merchant: Please your patrons and they will stick by you. Such advice would appear to be easily acted upon, but the performance of that duty involves very much more than may be comprehended at a moment's thought. It is not only necessary that a customer should leave a store satisfied in his own mind that he has received cordial treatment and value for his money, but the employer or employe himself should also feel that he has done his duty to his patron and that the goods sold have not been misrepresented, that the prices have been right and that he has striven in every way to please him. When an order has been left to be filled be sure upon accepting it that you can fill it to the satisfaction of the customer. By striving in every way to hold your trade and to increase it by reputable methods you will have done your duty to yourself and your patrons, and thus have covered pretty thoroughly the spiritual phase of merchandising.

Steel for Belting Purposes.

THE use of steel bands to take the place of leather belting for the transmission of power is said to have proved practicable after repeated tests by a firm in Charlottenburg, Germany. The points of superiority claimed for this new method for power transmission are the following:

On account of its solidity a much narrower band can be used, one-sixth of the width of the usual leather band being sufficient; as a result of this the steel band is not so heavy as the usual leather band, and, as it can be very tightly adjusted, the distance between the engine and the machine is not a matter of importance, as is the case with the leather belting, where the transmission of power is dependent upon the weight of the hanging belt; by a unique contact, the slippin

is much reduced, experiments having shown that this does not exceed one-tenth of one per cent. Careful and repeated experiments, it is said, have shown that the entire loss of power is very small, and as far as can be ascertained will not exceed one per cent. Further owing to the lightness of weight of the steel belting, it is claimed, the influence of the centrifugal force is not so great and allows of a much increased velocity.

Our Inexhaustible Coal Supply.

According to officials of the United States Geological Survey there is absolutely no reason why we should lose any sleep over the gloomy prognostications that are advanced from time to time by certain individuals who are in the habit of speaking disparagingly about the country's coal supply. The utterances of some of these wiseacres would lead us to believe that there are grave possibilities that before many decades have gone into the past our innumerable coal-producing districts will have been depleted of their precious deposits. So optimistic, however, are the survey scientists concerning the situation that one of them is credited with making the statement that it will probably take longer than fifty centuries to exhaust the country's coal fields.

Some interesting statistical information of the production and consumption of coal in the United States appears in a report prepared upon the subject by officials of the Survey. The total quantity of coal produced up to the end of the year 1865 amounted to 284,890,055 tons, while ten years later the total production exceeded 700,000,000 tons. Up to the year 1905, 5,970,778,571 tons had been mined. Some interesting comparisons may be noted when considering this immense increase in production along with the rapid increase in the population of the country. Reverting back to the middle of the nineteenth century and comparing the statistics of coal production with the augmented population, it is found that according to the census returns of 1850 the production for that year was 6,445,681 tons, when the population of the country amounted to 23,191,876 inhabitants, or a per capita production in that year of 0.278 ton. In the year 1860 when the population had increased to 31,433,321 persons, the coal production was 14,333,922 tons or a per capita production of 0.514 ton. According to the report, while the population from 1850 to 1900 has shown an increase of 230 per cent, the production of coal had increased 4,084 per cent. The South alone is now said to be mining far more bituminous coal than the entire country mined in the year 1882.

How to Acquire Chinese Trade.

Suggestions on methods to be pursued by American business men in introducing their goods into China, are offered by Consul Wilbur T. Gracey of Tsingtau, who declares that catalogues can never in themselves be sufficiently effective to increase the sales of American products in the far eastern empire. Most prices quoted by American firms to Chinese merchants, are, the consul states, extremely high, on which varying discounts are given. Such devious quotations are said not to be very clear to oriental merchants, and Mr. Gracey asserts that they must be done away with before business in the east can be strengthened. The Chinese have little difficulty, it is affirmed, in comprehending European quotations, which are usually actual values without discounts, frequently in the currency of the nation, but more often, if possible, in the currency of the Chinese city or town from which inquiries for prices emanated.

The celestials, it is said, do not understand the method of purchasing by catalogue, for mail orders are almost an unknown quantity in that part of the world. Furthermore, Chinese purchasers, as a rule, find it impossible to read an English catalogue. Catalogues that are sent to consulates in China are usually filed away and held in the event of any inquiries being received, but applications for them are, ordinarily, few and far between. Consul Gracey suggests that if American manufacturers instead of sending catalogues would employ a traveling representative to inspect the territory for them, and investigate the methods employed by other firms in that particular district, their trade would increase more rapidly than under the present system.

American manufacturers desiring to dispose of their products in China can only do so, according to the consul, by conforming to the wants of their customers, which can only be discovered by some one familiar with the particular product which is to be sold; by carefully canvassing the market, which must be done by expert agents, armed with samples, and if possible with a supply of goods in one of the large central trade centers of the Orient. A knowledge of the Chinese language is not a necessity to such an agent, though it would, of course, be of value to him. A knowledge of the customs of China, the methods of trade, the mannerisms of the people, etc., however, would be an invaluable asset. One of the most important points is to have goods available in China, so that delivery can be made within a few days, or, when that is impossible, to be able to give credits of from one to several months.

One of the great drawbacks to the introduction of American goods in the east, it is stated, is that the manufacturer expects to ship with payment in advance or upon delivery to the vessel. Against this British firms give credits, even to comparatively unknown firms, of from two to six months, or even more, while the German firms extend such lengthy credits that it amounts practically to sale on commission. Reform in the American credit system would do much to increase trade, suggests the consul. American business men should be continually investigating the eastern markets, and when a possible trade is discovered they should cater to its needs, paying special attention to the question of credits and to that of packing, remembering that the transportation facilities in the interior of China are still primitive. Competing lines of goods will often find a better sale because they are packed in some special way that makes their transportation by mule, wheelbarrow, or some one other of the peculiar methods of transport in China, easier, and therefore cheaper. The sale of goods intended for the interior of China is largely effected by these means of transportation, and this is

one of the points that should be investigated by the special agent, the ultimate destination being one of the great points which is usually considered by the European manufacturer with whom the American must come into competition.

RANDOM NOTES AND SKETCHES.

BY SIDNEY ARNOLD.

Did you ever get something for nothing? Perhaps you have. But not in my old friend Bill Harley's store. Bill keeps a well-selected stock and, if I do say it myself, you get your money's worth in everything you buy there. But Bill is not giving things away. Oh, no. He does not even believe in the premium idea. The only premium you may get from him after you pay your money and take your choice, is an indifferent smile or a perfunctory "Call again," and you've sometimes got to take a chance on getting that, for Bill is a dyspeptic and smiles are at a premium with him.

* * *

Well, after talking with him for a minute or two and learning that business had been somewhat dull for a few days by reason of the wet weather, a little girl in short dresses appeared upon the scene and interrupted our conversation. "Ma wants a paper of tacks and a hammer, an' she'll bring fifty cents over herself when pa gets back from work this evening," said she in childish tones. "All right," said Bill, and he proceeded to get the articles. "But," continued the little girl, "she wants you to give me the change out of the fifty cents 'cause she wants to buy a dozen of eggs." Did he loosen up? Not so that you could notice it. Bill could not see it that way. He needed the cash as badly as the grocer.

* * *

By the way, Bill Harley is nearing the seventy mark and is working as hard to-day as he ever did. He is pretty well fixed, but his health is not as good as it used to be. I asked him before leaving why he insisted on spending so much time in his store, seeing that he has two sons who can pretty near take care of his business. The answer I received was this: "You know, I must have a few dollars for my last sickness and have enough to bury me."

Did you ever hear of any one in his last sickness sticking by the way for lack of funds? I guess not.

* * *

In line with other things I have been handing out recently of the order of ingenious "snaps" for creating trade interest in retail stores and awakening buying temptations, here's an ingenious one by an Oregon hardware and general merchant who conducts the following rebate or premium plan. Tickets are printed in denominations of five, ten, twenty-five and fifty cents and one and five dollars. These are given with every cash purchase of five cents or more and discounted at 5 per cent on the dollar redeemable in any china, glassware or home goods in the store. In one corner of the store is a set of shelves and a table covered with these goods; each article bearing a label showing the price. So thoroughly familiar are the store's customers with the plan that they come to this premium corner and pick out the articles called for by the tickets they present at one time themselves. In some instances customers save up as much as $200 worth of tickets, redeeming them in premiums.

* * *

I have just received a newspaper clipping announcing the fact that a tin ship is soon to be opened in Orange, Texas. The thought occurred to me when I first saw the notice that Orange was preparing to hold an exposition or world's fair, when the most important stunt would be the eviscerating of this unusual freak of the artisan's handicraft. I made inquiries, however, and satisfied myself that nothing of any national importance was about to transpire at Orange, though strange things sometimes do occur in the lone-star state. As no dimensions nor description of this wonderful ship were given in the clipping, and no information furnished relative to the time spent in constructing it, I concluded that nothing unusual was about to occur beyond the important fact that my friend, R. L. Manor, was contemplating opening a tin shop there. No one had blundered save the printer.

* * *

Yes, strange things do frequently happen in Texas, and still stranger things do not happen, for I am informed that not long ago a barn adjacent to a hardware store in Whitesboro took fire and was burned to the ground. Of course there is nothing to excite wonderment in this occurrence, but what knocks me silly is the fact that sixty pounds of dynamite resting peacefully in the hardware store did not cut loose and create some excitement. They say that the days of miracles have passed. Perhaps they have, but miracles don't cut much ice with me where dynamite is concerned.

* * *

A metropolitan newspaper is authority for the statement that plows, carpenter tools and everything else needed to build a city are being purchased for twenty girls who are going to Wyoming to establish a manless town. What would be the matter with taking along a few files (nail files, of course) and incidentally ordering a large stock of pins? By going to Wyoming the girls will be obliged to forego the enjoyable pastime of taking a trolley ride in an open car, for there are no such conveyances in that state as yet.

* * *

Some good advice to the young man whose inclinations may induce him to indulge in gambling, uncertain speculation or disastrous peculation, is given in the following lines written by Herbert Kaufman in the *Chicago Tribune:*

How many millionaires piled up their money at the track
Or won their fortunes guessing that the ball would roll on black?
If you think that *gambling* is the way for you to get your stack,
You are slated for a lovely seat some 23 rows back.

Don't you know bald-headed John D. R. had 20 years of toil
Before he made much more than his *expenses out* of oil?
If you hanker for the green, just take a *gambol* on the *soil*
Where the only *chips* that count are those that fly from *honest toil.*

News Siftings

The Scott National Radiator Co., of Cambridge, O., will in future be known as the Scott Stove & Furnace Co.

The Progressive Furnace & Stove Co., of Colorado City, Colo., is erecting a new store room which will be 50 feet long by 30 feet wide.

The Howard Stove & Mfg. Co., of Savannah, Mo., is reported to be considering a location at Ralston, Neb. It employs 80 men and is said to do a business of $50,000 a year.

The Stove Mounters and Steel Range Workers' International Union has decided to hold a general convention this year. It will take place in Chicago the third week in July.

The Troy Nickel Works of Albany, N. Y., is sending out to stove manufacturers throughout the country a spicy little letter soliciting orders for their products, the well known Alaska stove trimmings, which include shovels, pokers, lid lifters, knobs and malleable stove fittings of every description.

The Lattimer Stove Company is the name by which, it is reported, the Lattimer-Williams Mfg. Co. of Columbus O., will in future be known. The selection of Allen W. Williams, who has been secretary of the company, to the secretaryship of the Central Stove Manufacturers' association necessitated his withdrawal from the active work of the company and also a change in the name of the corporation. As Mr. Williams' successor as the secretary of the company, Gardner Lattimer, a son of George W. Lattimer, president of the company, has been elected.

The Co-operative Foundry Company, of Rochester, N. Y., whose western and northwestern agency is managed by John Kontny, 246 S. Clinton street, Chicago, has issued an attractive little folder illustrative and descriptive of the "Red Cross Prize," the trade name given to stoves and ranges manufactured by this company. Four illustrations appear showing the square top, four or six-hole construction; the plain top with high shelf, with or without water front; with reservoir, copper or enameled and provided with Duplex grates, and with reservoir and high shelf, and sheet steel oven plates.

The Toledo Stove & Range Co., of Toledo, O., has in course of preparation a new catalogue that will be of quite large dimensions, the pages running to about 11x15 inches in size. Each page will illustrate a single stove or range by large pictures made in photo half-tone effect, and the dimensions of the illustrations are such as to very distinctly portray all of the details and all of the interesting effects that relate to each of the several productions. The black prints of the stove illustrations are laid over full page vignetted backgrounds, done in deep pink tones with very rich and interesting effect. It goes without saying that this new and interesting catalogue will make a distinct hit with the trade when it appears.

The Columbus (O.) Journal is authority for the statement that the controversy between the stove founders and the pig iron men over the contract question will be settled very shortly and the stove men will begin placing their orders for pig iron. For some time there has been strong effort on the part of buyers to obtain some concessions in the contracts for pig iron, the foundry men asserting that the contracts are all in favor of the seller and against the buyer. It is now understood, says the Journal, that the Central Stove Manufacturers' Association of which M. Hertenstein is president, has secured modifications in the form of contract and as soon as some details are arranged the new contract will probably be adopted by both parties to the transaction.

"CHAMPION" GAS AND COAL RANGES.

A range that in a few seconds can be changed from coal to gas or from gas to coal without disconnecting a pipe or removing a bolt, is manufactured by The Champion Steel Range Company, 3950 W. 25th street, Cleveland, O. It is not a combination nor a coal and gas range bolted together, but an absolutely interchangeable range. This range is provided with burners under the covers for heating the top which can be swung in or out by a lever. The pipe to which the burners are attached is connected to the upright pipe with a swivel joint, which has an automatic shut-off that prevents any escape of gas when the range is changed to and for burning coal. Natural or artificial gas may be used, for the burners have an adjustable valve and air mixers. Another strong feature of this range is that it has a separate burner under the oven which can be operated with at least two-thirds less gas than many coal ranges that have gas burners only in the fire-box. By the use of the company's patent burner all the heat goes up on both sides of the oven and into it before it escapes, where with an ordinary gas burner placed in the fire-box of a range to be used for baking the gas heat must be forced down, a process which frequently results in odor and sweat.

Interchangeable Gas-Coal Range.

The "Champion" interchangeable gas-coal range possesses a number of important features. Its consumption of fuel is comparatively small. Being so constructed that it feeds the fire with hot air instead of cold, it can be operated as a coal range at a small cost. The outside of the oven is encased with two sheets of heavy steel with thick asbestos between, which retains the heat so that as a gas range it can be

operated at a minimum of cost. Rubbish which accumulates daily in the house can be burned in it without any inconvenience. The company claims that the best material and workmanship is employed in its manufacture. The Champion Steel Range Co. will be pleased to mail on request their catalogue "C" which will give further information about this innovation in cooking and baking apparatus. When writing for it, kindly mention THE AMERICAN ARTISAN.

A BASE BURNER CONTAINING A LITTLE FURNACE.

One of the new constructions of the year that merit and will command attention is the new Clermont base burner manufactured by the Gem City Stove Co., of Dayton, O. The stove presents a massive, imposing appearance. Its architectural lines are graceful, straight lines having been avoided, and it presents a beautiful series of curves and circles. There is abundance of mica illumination and the nickel ornamentations not only ornate but the quality of the nickelplating is much better than is usually found on stove work. What will make this new stove command attention is the fact that in addition to being an attractive room heater, each stove is a perfect furnace, as by a patented system of circulating flues 1,000 feet of extra radiation are provided without increasing the bulkiness of the stove, increasing its size or marring its appearance. Cold air is taken under the base and passes between the fire chamber and the diving flues and when it enters the room it is thoroughly heated without having to pass through the fire chamber. Hence, the air is always fresh and pure. The company is justly proud of the Clermont base burner.

BELLEVILLE STOVE AND RANGE COMPANY'S CATALOGUE.

The 1908-1909 catalogue of the Belleville Stove & Range Company, Belleville, Ill., is a book of 183 pages, measuring 6 x 9 inches, and is a masterpiece of the printer's art. The cover design is embossed in black and gold, the interior of the book being printed on a very fine grade of enameled paper so that the numerous illustrations of St. Clair and other stoves and ranges which appear throughout the book are shown up to splendid advantage. The company has added to its line this year a number of entirely new patterns and it has also made a great many changes in its list prices. The St. Clair line embraces an assortment of malleable ranges, steel ranges, cast ranges and cooking and heating stoves, which are all up-to-date in design, finish, quality and operation. It is claimed they are manufactured by skilled workmen and of the very best material, in a well-equipped and well-arranged stove foundry.

In presenting the malleable St. Clair steel range the company takes a great deal of pride in announcing that it has produced a malleable range of exceptional merit. The range bodies are made of Wellsville polished steel plates. All frames, doors, tops, top plates, covers, centers, in fact, all parts that insure durability, are made of malleable iron, which is all riveted together in the most substantial manner. The fire-box is made extra heavy and durable, with Duplex combination coal and wood grate. The water front is made straight or ell shape to give it increased heating surface. Cold rolled soft steel is employed in making the oven, and the oven bottom is made of No. 12 gauge steel, and riveted on all four sides with strong braces, which prevents them from buckling or warping. All oven plates are riveted to malleable iron frames, both in the front and rear of the oven, insuring an air-tight oven which is clean and free from dust, etc. The oven doors are strongly hinged and lined flush with the bottom of the oven when opened. The ash pan is made of heavy sheet steel. The tops are made in sectional parts, of malleable iron, and are smooth and level. Heavy asbestos board which retains the heat and preserves the body of the range, is employed in lining the flues. The finish is a striking characteristic of St. Clair ranges, the nickeling being very brilliant and durable. If so desired all malleable ranges can be arranged for coil. Plain, ground and enameled hollow ware manufactured by the Belleville Stove & Range Company is also illustrated and described in the catalogue and numerous directions for setting up and operating stoves and ranges are also given. The catalogue may be had for the asking, and when writing for it kindly mention THE AMERICAN ARTISAN.

STOVE MANUFACTURERS' CONVENTIONS.

The annual meetings of stove manufacturers to be held in New York City during the coming week are expected to be largely attended. The Hotel Astor has been selected as the place of meeting. The Stove Founders' National Defense Association will meet at 10 a. m. on Tuesday, May 12, and the National Association of Stove Manufacturers will hold its first session on the morning of May 13. An entertainment and smoker will be held at 8:15 on the evening of the latter date in the ballroom of the hotel, to be followed by a supper.

IRON RANGE TOWNS MARKED FOR REMOVAL.

Information coming from Sparta, Wis., predicts the comparatively early removal of that entire town to some other location which will be selected for its establishment. Sparta is a town of nearly 4,000 souls. It is located upon the Mesaba Iron Range and its site is completely underlaid with the very best grades of iron in the region and the removal will be made for the purpose of mining the ore economically, which can best be accomplished by an entire removal of the town. It is said that the new location has already been selected and has been chosen following an exploitation of the indications by diamond drilling to discover a locality where the ore does not exist. The United States Steel Corporation owns the entire region and it is under the direction of this corporation that the removal has been projected. The towns of McKinley, and Hibbings, which is the metropolis of the Mesaba range, are both underlaid with large ore bottoms, and it is said that several other villages are similarly situated and that it is but a matter of time when their localities must be vacated to permit of the utilization of the ore underlying them.

The Hardware Record.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly. You will find these on pages 34 to 39 inclusive.

The capital stock of the Illinois Roofing & Cornice Co., of Chicago, has been increased from $5,000 to $15,000.

The Consolidated Mfg. Co., of Hartford, Conn., has been incorporated to manufacture specialties such as ice cream freezers.

C. J. Morgan, vice president of the Taylor & Boggis Foundry Company, Cleveland, has returned from an extensive trip to Europe.

The Heffner Mfg. Co., of Warren, O., has been organized with a capital stock of $5,000 to manufacture fire proof thimbles, etc.

The Owosso Mfg. Co., of Owosso, Mich., will erect a three-story building, to be 80x100 feet, to take the place of their present quarters.

It is reported that the Australian Government has placed an extra duty of £5 per barrel on imported guns not bearing authorized proof marks.

The plants of the Allegheny Steel Company and the International Steel Company have resumed operations at Tarentum, Pa., affording employment to 1,500 men.

The Venus Novelty & Tool Company, of Mt. Vernon, N. Y., has been incorporated for $25,000 by J. Everett Knapp, Blanche M. Knapp and J. Henry Esser.

Metcalf Bros., manufacturers of harness at Oneida, Ill., have been succeeded by S. J. Metcalf & Sons, A. D. Metcalf, the senior partner of the old firm having retired.

The Home Mfg. Co., of Chicago, has been incorporated for $10,000 to manufacture and deal in hardware specialties. The incorporators are Benjamin Samuels, H. R. Glick, Morris Kompel.

The Steel Equipment Co., of Chicago, has been organized with a capital of $3,000 to engage in general metal manufacturing, the incorporators being J. E. Bales, D. I. Jarrett, Sarah Brennan.

The American Iron & Wire Works of Chicago has been incorporated for $50,000, to manufacture all kinds of ornamental and architectural iron work. The incorporators are J. W. Scott, F. H. Gansbergen, and S. Flansburg.

The Boyes-Beck Hardware Co., Ltd., of Caldwell, Idaho, has succeeded to the business of the Boyes Hardware Co. The new company has been incorporated for $10,000 by Fred C. Boyes, E. H. Plowhead and Geo. Beck.

Henry F. Noyes, of Waynesboro, Pa., has established a new factory for the manufacture of vertical T squares and draughtsmen's tools. The vertical T square is an invention of Mr. Noyes upon which he has secured a patent.

The Hempstead Brass Company of Hempstead, N. Y., has been organized to manufacture hardware and plumbers' supplies, the capital being $10,000. The incorporators are John R. McLean, Ernest C. Muncke and Theophilus Parsons.

Business is reported good with Vollkommer & Co., Pittsburg, manufacturers of enamels and enameling plant supplies. More orders, it is said, were received by this firm in April last than in the whole three preceding months of this year.

The directors of the United States Steel Corporation have re-elected the former list of officers. They are: Elbert H. Gary, chairman; William E. Corey, president; James Gayley, first vice president; William B. Dickson, second vice president; Francis J. Filbert, comptroller.

F. K. Rhines, assistant to the general manager of the General Fireproofing Co., of Youngstown, O., is now connected with the sales department of that company. Mr. Rhines succeeds Mr. H. B. McMaster, who has associated himself with the Youngstown Sheet & Tube Co.

The Union Steel Screw Co. of Cleveland, O., has been reported merged with the National Screw & Tack Co. The plants and property of the former are sold outright to the National company for $461,125, payment to be made in 6 per cent preferred stock. This liquidates the $542,500 stock of the Union company at $85 a share. The capitalization of the National Screw & Tack Co. is increased under the merger from $1,000,000 to $1,461,000. There will be no change in its officers as a result of the combine. W. D. B. Alexander is president of the company.

Bids will be received until May 18, 1908, by the Isthmian Canal Commission, Washington, D. C., for the supply of locomotive coaling cranes, shop machines, pumps, cutlery renovator, clam-shell bucket, saws, swages, rigger screws, turn-buckles, rope thimbles, iron rings, augers, chucks, wrenches, timber carriers, water guages, packing, rubber valves, cotton waste, marline, sash cord, manila and wire rope, chain, steel tubing, brake shoes, rail clamps and bars, exhaust heads, manganese steel pins, steel bolts and nuts, repair parts for crane, grease cups, chain blocks, rivets, marline spikes, vitrified sewer pipe, hot water tanks, water coolers, filters, kitchen utensils, teaspoons, butcher's blocks, towels, tables, chairs, floor mats, safes, lard oil, mineral oil, tallow, lubricating grease, basswood lumber, etc.

NEW SAMPLE HOUSES FOR BUTLER BROS.

Butler Bros. have leased spacious quarters in San Francisco and in Omaha for extensive sample displays which will be opened upon or about July 1. At San Francisco they have taken two floors, each 77x100 feet, in a new building at the corner of Mission and Second streets. At Omaha they have rented the entire ground floor at 1108-1110 Howard street, splendidly lighted and ideally adapted for display purposes. In both of these cities the showing of holiday goods will be complete, exactly the same as in the firm's houses in New York, Chicago, St. Louis and Minneapolis. The display of general merchandise will be impressively large in both these centers. As is the case in all of their sample displays each article will

be marked with a tag showing its price in plain figures and the samples will be shown in a compact way which makes it possible for the buyer to get over a lot of ground in little time. It may be inferred from this new move that Butler Bros. are optimists, and that they anticipate that business will still continue to boom.

THE FIRST PRIZE WINDOW.

As was stated in the columns of the April 11th issue the judges chosen to examine the photographs that were submitted in THE AMERICAN ARTISAN'S prize hardware window display competition which closed on April 1, 1908, awarded the first prize to Martin Jenter of the Warner Hardware Company, Minneapolis, Minn., who entered the contest under the assumed name of "Marshall Vorwarts." The photograph which was unanimously selected by the judges to be the first in order of merit we reproduce herewith, and take pleasure in publishing the description of this window as submitted by Mr. Jenter as follows:

"This window as photographed has 14 front feet of glass and is 6 feet deep, enclosed in wood work finished in mahogany. The particular tool window shown is the outcome of a plan showing the disposition of the goods from the manufacturer to the consumer. The card lying in the foreground has the following printed on it:

"Here is shown: No. 1, the factory making the goods; No. 2, the steamer transporting the goods; No. 3, the man selling the goods; No. 4, the mechanic requiring the goods; No. 5, here is your opportunity to buy the goods.

"The factory building is made of card-board and is an exact reproduction of the L. S. Starrett Tool factory, as illustrated by them. The 285 windows in the main building were cut out of the card-board. Behind this was placed 12x12 mesh wire cloth to represent the old-fashioned small panes of glass in the factory windows. Blue tissue paper was glued behind the screen to give a better lighting effect. The roof is made of emery cloth. The newer part of the factory is separated from the old factory by a broad street formed in the window by actual stones, sand, gravel, etc. The perspective view of the factory in the distance is the hand-painted work of the window trimmer on card-board.

"The steamer in the foreground is made of miscellaneous hardware, butts, auger bits, oil-stones, etc. The boat is anchored with chains, but ready for departure, as indicated by the smoke (steel wool) arising from the smokestack of the steamer.

"The man selling the goods representing the clerk standing behind the counter, the man using the goods, and the mechanic before the counter, are made entirely out of mechanics' tools. Careful inspection will show the center gauge serving as the salesman's necktie, the outside calipers giving the outline of his head; the squares outlining the pocket lapel; the buttons of the coat represented by ball points; and on the customer we call your attention to the hat made of a micrometer caliper; outline of the coat with die stocks; buttons on the coat sleeve with dies; the hand of thread gauges and rules; the creases in the elbow of the coat with calipers.

"One of the most attractive features of the window and not shown in the photograph was the genuine smoke coming out of the two front smokestacks of the factory proper. This feature was brought about by means of a stove made of a tin box and screens in which was burned 'incenso,' the stove being placed behind the tool display board at the right near the entrance to the window and connected with the chimney by pipes, made of brass tubing, running under the street and through the factory to the chimney, as

Winner of First Prize in The American Artisan's Hardware Window Display Competition—Submitted by Martin Jenter, of the Warner Hardware Co., Minneapolis, Minn.

evidenced by the dark shadow in the window. The smoke was driven through the pipes by the heat of a 32-candlepower globe underneath the screen plate."

Photographs and descriptions of the other three prize-winning window displays will appear in succeeding issues of THE AMERICAN ARTISAN.

HAND BOOK ON SAWS.

Disston Hand Book on Saws, by Henry Disston & Sons, Inc., of Philadelphia, Pa., is presented in a new and revised edition containing 208 pages of highly useful and practical information relating to saws specifically, in the abstract, and also historically. It contains interesting articles on the processes and history of the making of Disston's saws, tools and files. In this series of articles the processes which have led up to the present wonderful perfection of the Disston product are comprehensively related in connection with a large number of illustrations of the products and the works. There are also given highly valuable treatises upon the care and use of saws and other like items. The volume is a distinctly interesting one and the historical and other facts which it presents concerning saw, file and tool manufacture are not only interesting, but are of a nature that will be found altogether surprising, even to people who are so situated as to feel that there is little about these goods that they do not already understand. The very handsome volume is offered to the trade free of charge. It may be had promptly upon application to the company as above indicated. In writing for it kindly mention THE AMERICAN ARTISAN.

OPERATIONS OF MERCHANT & EVANS CO.

Merchant & Evans Co. of Philadelphia and various other cities report a constantly increasing interest in their manufacturing and engineering department. It has been necessary for them to secure additional shop room and greatly extend their machine tool facilities. They now have one of the most completely equipped modern machine tool shops in the country for work of precision, with a complement of such tools as Gisholt, Jones & Lamson, Lodge & Shipley, American and Pratt & Whitney lathes; Becker, Bullock and Lucas boring mills; Dreses and Light drills; Becker-Brainerd and Kempsmith millers; Gould & Eberhardt shapers; slotters, broachers and a complete variety of small tools of every description.

With this equipment they can make quick delivery of their growing orders in this department and produce their output at the minimum of shop cost and the maximum of excellence according to the best American practice.

They are now contracting for an expensive, double-action heavy press equipment for the manufacture of large and deep steel stampings of every sort.

One of the noticeable specialties of this company is the "Hele-Shaw" clutch, which has secured its greatest popularity for use in automobile construction but which has been very extensively and successfully employed in a wide range of mechanical drives of every description abroad.

The English manufacturers, from whom Merchant & Evans Co. have secured the exclusive license under the American patents for the manufacture of this clutch, have installed something like 25,000 horsepower in the past four years in England, in Europe, and in foreign countries, in over 50 different applications ranging from one to 1,000 horsepower.

A brief description of this device, which has remarkable qualities of efficiency, smoothness of action and endurance combined, with great compactness and comparatively small size—thus making it peculiarly suited for very heavy duty in very small space, will doubtless interest our readers.

The peculiarity of the clutch and also the merit lie in the fact that the engagement of the plates instead of being as heretofore is in a 35-degree V-shaped circumferential groove. Although a trifling mechanical change to the casual thinker it constitutes the whole difference between success and failure in a metallic disc clutch. First by virtue of engaging a V-groove of one-third of a plane surface each pair of plates does three times the work of any flat pair or the same work with one-third the spring pressure. It is obvious, therefore, that at the same engaging spring pressure the "Hele-Shaw" clutch will do three times the work of any other metallic disc clutch of a similar design, or in a restricted space that the "Hele-Shaw" clutch one-third the size of any similar clutch will do this work equally well.

By virtue of the engagement in a V-shaped groove the flat portions of the plates or the fins as they are called, are always separated by about one-eighth inch. This permits the circulation of an oil bath constantly right up to the point of work and radiates heat continuously, thus preventing the "Hele-Shaw" clutch from ever heating due to slippage, whereas flat plates in engaging constitute a solid pack of metal normally and will so heat as to carbonize or blacken the oil. In the event of the accidental absence of oil the same amount of heat that would distort a flat plate does no injury to the "Hele-Shaw" plate because of its transverse rigidity due to its peculiar groove. It therefore cannot be injured by heat. This makes it peculiarly advantageous for constant duty work such as planer and machine tool reverse gears, automobile and motor boat work, all automobile drives, where the clutch is constantly working in and out of engagement, pulley and coupling work at important points, cranes, gas engine and electric motor drives, rope drive work for conveyors, hoists, etc.

The range of successful application which has already been discovered and completely proven in practice for the "Hele-Shaw" clutch in the industrial arts is too long to be enumerated in detail.

A peculiarity of this clutch which puts it in a class apart from any other one is its uniform rate of pickup. When thrown into engagement it picks up its load on a straight diagrammatic line, instead of a curved one. This peculiarly gratifying property of the "Hele-Shaw" clutch appeared in its experimental try-outs and was later proven in practice by its employment to couple up alternating current electric motors to Hoe printing presses. Unless the rate of pickup in this engagement is absolutely uniform from a state of rest to full speed the damp paper in the press is torn. A number of large electrically driven printing establish-

ments in London are now coupled by "Hele-Shaw" clutches with perfect operating results in practice. This excellent property of the clutch makes it peculiarly desirable for dynamometer work and refined drives of every character.

Each driving problem requires its peculiar engineering solution. Merchant & Evans Co. will be very glad to make a study of any clutch need for any work and give full information about the application of the "Hele-Shaw" clutch, with prices.

In addition to this wide range of specialized engineering work, Merchant & Evans Co. are putting out a complete line of automobile parts for industrial and pleasure cars, such as rear axles and transmissions, front axles, four-cylinder motors with or without clutch, for motor boat as well as car use, and the "Star" stamped metal tire case.

When writing, kindly mention THE AMERICAN ARTISAN.

BLICK NO. 3.

Ever since the original establishment of the rural free delivery of mails by the United States government there has been a vigorous competition in progress between various patterns of rural free delivery mail boxes, the general features of which according to government requirements, must conform to specifications that the postal authorities have prescribed for boxes for this purpose. In the conflict of interests that has resulted from this competition the Blick-Williams Co., of Indianapolis, Ind., has come out with flying colors and with a patronage for its Blick No. 3 Rural Free Delivery Mailbox that it is not only very gratifying, but which is also most highly satisfactory in aggregate results in point of sales. This particular box is a large one. It is 6½x8½x9 inches in size. It is made of heavy galvanized steel. It is painted green, the new government color, and it is of the same shape and color as city mail boxes. It has a positive locking flag signal, an automatic latch, a water tight quality and every box is completely tested before it leaves the manufacturers' hands, consequently every box is thoroughly guaranteed. In the disposition of this class of product by retail hardware dealers there is to be had an advantage in getting a box of this order which is of standard size, standard quality and standard government requirements. With these provisions the dealer will find no opportunity for fault finding by patrons, and in the goods in question there is to be had a very satisfactory profit. Good printed literature relating to this and other items of the company's manufacture may be had by addressing as above indicated. In writing kindly mention THE AMERICAN ARTISAN.

TO OFFSET CATALOGUE HOUSE COMPETITION

J. M. Thompson & Sons Hardware Co., of Owatonna, Minn., is sending out to farmers in the country tributary to Owatonna, a catalogue which is intended to offset catalogue house competition. Among the many things listed in it may be mentioned roofings of various brands; gray, blue and white enameled ware, galvanized iron ware, hay carriers and slings, bolster springs, tools of all kinds, wire fencing, stoves, cutlery, fire arms, etc. The company proposes to sell the best possible selection of hardware at the lowest possible price, quality being considered, and it also guarantees to meet any price on any article of hardware listed in any catalogue. It further guarantees that if anything is purchased that fails to give satisfaction it will, without any argument, take it back and refund the purchase price. The company sells for cash only. A strong plea is made for patronage in the introductory page in the catalogue, and judging from the concessions that the J. M. Thompson & Sons Hardware Company is willing to make to obtain business, there should be very little difficulty in making matters quite interesting for mail order concerns.

PRODUCTS OF EDW. A. FOY & CO.

E. A. Foy & Co., 409-411 East Eighth street, Cincinnati, O., wholesale dealers in lightning rods and ornamental weather vanes, are introducing to the trade two of their latest products, one of which is known as their 49-wire cable, and the other as their No. 8 all-copper rod, illustrations of which appear herewith.

The 49-wire cable is a solid twist copper cable, said to be 98 per cent pure copper and claimed by the manufacturers to be the best copper cable rod sold. It is specially adapted for tall buildings, and so tightly is the copper wound that it will retain its position under any conditions. All sizes of cables over ½-inch are reeled on spools in lengths of 250 feet, while cables of 5/16-inch up to ½-inch measure 500 feet to the spool.

49 Wire Copper Cable.

No. 8 All Copper Rod.

The No. 8 rod is an all-copper product centered by a solid copper wire. It is much in demand as a combination cable and section rod. It has a large surface and is reputed to be one of the best lightning conductors made.

Both products are entirely new and the up-to-date

hardware dealer may find it advantageous to become familiar with these goods. Edw. A. Foy & Co. will be pleased to furnish catalogues upon request. When writing them kindly mention THE AMERICAN ARTISAN.

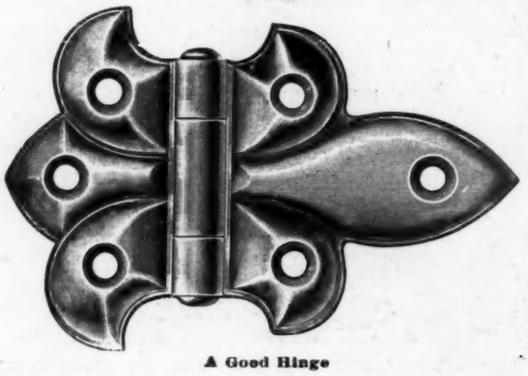
AN INCANDESCENT LAMP THAT MAKES IT OWN GAS.

We illustrate herewith a lamp that makes its own gas from ordinary gasolene, producing a beautiful incandescent light through the medium of a mantle. It is said to run eight hours at a cost of less than one cent. The manufacturers, the Incandescent Lamp Company, 115 Fifth avenue, Chicago, Ill., claim that there is no lamp now upon the market like it, as all other lamps for the same purpose have to be hung from the ceiling and cannot be moved around at will as is the case with the "Little Sunshine" table lamp. They claim that it will supersede kerosene oil lamps, as it does away with the smoke, odor, constant cleaning of lamp chimneys, trimming of wicks and the perpetual oily sweat adhering to the outside of lamps. Also that it will supersede the gas and electric drop lights, as it is claimed it will give as much light at one-tenth of the cost, and as stated above can be moved anywhere that it is desirable to use it. Good illustrated matter on application. In writing kindly mention THE AMERICAN ARTISAN.

Incandescent Gas Lamp.

GOOD HINGES.

The accompanying illustration is of an ornamental hinge which is a feature of an assortment of high grade hinges that is produced by the Griffin Mfg. Co., of Erie, Pa. This is of a type of wrought surface hinge that is strong, massive and beautifully finished.



A Good Hinge

The goods of this line run to a variety of patterns suited for many uses and are intended for thoroughly high-class equipment. They are perfectly made, are exact in all their working details, and are very highly thought of by dealers and users whose hinge trade runs along lines requiring exceptionally good hinges. The company, while it does a very large business in this order of hardware does not confine itself entirely to the ornamental hinge department. It also makes extensive lines of shelf brackets, barn door hangers, door bolts, strap, T and butt hinges and other thoroughly reliable goods such as would naturally accompany first-class production of the kind named. A very good catalogue of the goods offered may be had upon application to the address indicated above. In writing kindly mention THE AMERICAN ARTISAN.

RETAIL HARDWARE DOINGS.

NEW FIRMS AND INCORPORATIONS.

North Chicago, Ill.—H. Hicks has opened a hardware store.

Portage, Wis.—The H. G. Lewis Hardware Company has been incorporated with a capital stock of $7,000.

Red Bluff, Cal.—J. R. Harvey & Sons has been incorporated with a capital stock of $50,000.

Grand Junction, Colo.—The Ross Hardware & Supply Co. has been incorporated with a capital stock of $15,000.

Woodward, Okla.—The E. Boyle Hardware Company is a new concern.

Soldier, Ia.—Dure Erickson and John M. Carlson have opened a hardware store.

Madison, Wis.—H. G. Kroncke Hardware Company has been incorporated with a capital stock of $37,000.

Milaca, Minn.—The Ellingboe Hardware Company has been incorporated with a capital stock of $50,000.

BUSINESS CHANGES.

Johnson, Neb.—D. Casey & Son, hardware dealers, have sold out to F. M. McElrath.

DeWitt, Neb.—C. A. Fowler has sold his hardware business to C. A. Rawiison.

Montpelier, Vt.—Bailey & Morse, hardware dealers, have sold out to Dan R. Campbell.

Britt, Ia.—M. W. McCarthy, hardware dealer, has sold out to Geo. Benzer.

Mt. Ayr, Ia.—Z. T. Kinsell has sold out to his brother, J. Lee Kinsell.

Staunton, Minn.—Frank Bell has sold out to Henry Nelson.

Cushing, Nebr.—Andrews Jepsen has sold his stock of hardware to Chas. Holm.

Stillwater, Okla.—Frazer-Moore Hardware Company has sold out to J. W. Merry.

Syracuse, N. Y.—A. W. Fournier has purchased the hardware business of A. Graff.

Montpelier, Vt.—E. H. Prouty and Dan R. Campbell have purchased the hardware business of Bailey & Morse.

Hoven, S. D.—Reidlinger & Allen have sold their hardware store to Theo. Edrich.

Hillsboro, Ill.—The McDavid Hardware Company has purchased the stock of Thomas Rhodes.

Tecumseh, Neb.—W. C. Cameron has purchased the hardware and furniture business of McDougall Bros.

Albia, Iowa—M. B. Lee & Son have purchased the hardware business of the Riggs-Hanna Company.

MISCELLANEOUS.

Sapulpa, Okla.—The Gillis Hardware Company suffered a loss of $10,000 by fire.

Bunker Hill, Ill.—The hardware store of Benner Bros. was burglarized.

Fairbank, Ia.—The Lehmkuhl Bros. have moved their hardware stock from the old stand to the Thompson building.

Petersburg, Ill.—The hardware store of Chas. A. Seese was burglarized.

New York, N. Y.—A petition in bankruptcy has been filed against A. J. Hemphill, dealer in hardware, 199 Fulton street.

Kenyon, Minn.—The hardware store of John Thornbald was recently desroyed by fire.

Braddock, Pa.—The hardware store of Jacob Klein was burglarized.

Johnston, Pa.—The store of the Swank Hardware Company was damaged by fire.

Albion, Pa.—The Wickwire hardware store was damaged by fire.

Advertising Department

Our readers are invited to send in copies of their advertisements in the local press for criticism. All communications should be addressed to the "Advertising Department" of THE AMERICAN ARTISAN.

The advertisement of the Hoernel Hardware Company of Racine, Wis., which appears herewith in reduced form, and in which "Stanley" tools are selected as being worthy of the attention and examination of users of tools, is one which cannot fail to attract notice. The top line, "Carpenters Wanted," is sure to strike the eye of men belonging to that craft who will, of course, be led to pay more attention to the advertisement than they would if no such striking heading were in evidence. The display is another strong feature of the ad, the type selections being also worthy of favorable criticism. The border surrounding the matter is not as bold, however, as it should be to harmonize with the heavy black type used in the display lines. The two lines directly beneath the cut are not written in the best English, the first one par-

ticularly being poorly constructed. The Hoernel Hardware Company was wise in having the addresses of its three stores in Racine appearing prominently underneath the name of the firm. The advertisement occupied a 4⅞-inch space, double column, in the *Racine Times* of April 10.

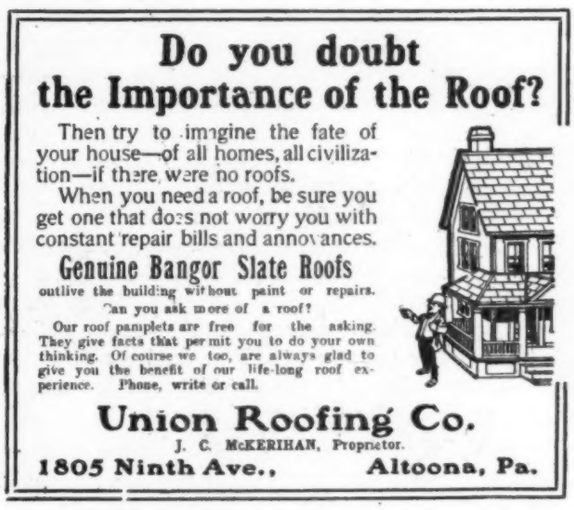
* * *

"Round Oak Furnaces" form the subject of a well-written advertisement of the Leonard Hardware Co., Springfield, Mo., which we reproduce herewith. The merits of this furnace are told in convincing language. The matter is well laid out, and the styles of type used, if conformed to throughout, would have merited commendation, but unfortunately this has not been the case. For instance, in the top line, two different styles of the letter "U" are used. This fault may also be seen elsewhere. The sketch shown in which an Indian and a little boy are seen standing near a "Round Oak" furnace is unique and should attract attention. A number of misspelled words occur in the ad, among which are "substantiated, "radiators" and "follow," the logotype "fi" being incorrectly used in the last word referred to. This, of course, is the result of careless proofreading. The advertisement is not at all distinct, due to a poor job of presswork. The Leonard Hardware Company is no doubt well known in Springfield, but owing to the fact that newspapers circulate about the country contiguous to a town, it is always advisable for an advertiser to mention the name of

the place in which he is located. The ad occupied a space of 7¼ inches, four columns wide, in the Springfield Republican of April 9.

* * *

The Union Roofing Co., of Altoona, Pa., whose advertisement is here shown, makes a specialty of "Bangor" slate roofs, and is satisfied that any roof that will outlive the building without paint or repairs, is one that should appeal to builders and household-



ers. The ad. is a good one of its kind, though the particular roof that the company advertises should be brought out in more prominent type than that made use of. The advertisement is very well written, but its general appearance would be much enhanced if a better and unbroken border surrounded it. It appeared in the *Altoona Mirror* of April 9, and occupied 4 inches of space, 2 columns wide.

Heating and Ventilating

"K-M-C" BRONZES AND ENAMELS.

Kellogg-Mackay-Cameron Company, Michigan avenue and Twelfth street, Chicago, are sending to the trade a very pretty and neatly gotten up folder in which variously colored samples of "K-M-C" radiator bronzes and enamels are shown. "K-M-C" bronzes are fully guaranteed, are absolutely uniform, form a leaf when applied, maintain their color and brilliancy, and are of large covering capacity. They are especially adapted for decorating steam and hot water radiators. The company's radiator enamels are of a superior quality, furnished in gloss or flat finish and are put up in quarts, half gallons and gallons. Any desired color or shade of these enamels can be readily made up to order. They are credited with possessing the properties of drying with a rich luster which is permanent and durable and which, it is claimed, will not peel or grow brittle when exposed to high temperature. Complete directions for using these bronzes and enamels are given in this neat little folder, the first page of which is illustrated with four Kewanee radiators. When writing for this folder or when making inquiries about the "K-M-C" bronzes and enamels kindly mention THE AMERICAN ARTISAN.

NEW SIDE WALL REGISTERS.

Two strictly new patterns of side-wall registers by the Tuttle & Bailey Mfg. Co. of New York, Chicago and Boston are shown in the plain latticed design and in thin wafer type in wrought steel with the swing diaphragm device which regulates and also directs the current of the hot air. This is laid out in accordance with modern requirements as to the extent of uninterrupted open work and is intended for vertical setting. The other pattern is in the wafer cast iron type in Moorish treatment. It is designed for horizontal setting, and this also is fitted with the swing diaphragm. Both of these patterns are offered in 8 x 10 x 12 sizes. They are made with detachable shallow frames which are to be set into the box in the usual way. The register plates are then affixed above the frame, the border margins covering and hiding any rough work in the wall surface. The registers are held in place by two screws only, one being driven at each side midway into the frame. The finishes of these registers are in black japan, white japan, and electroplate or oxidized copper. These patterns are but a portion of the new 1907 designs offered by the company, whose complete line may be had by asking for their illustrated catalogue. A request for the same addressed to either of the addresses shown will have careful attention. Kindly mention THE AMERICAN ARTISAN.

PARAGRAPHS.

The Ravenna Furnace & Heating Company of Ravenna, O., is constructing a warehouse which will occupy a ground area of 4,800 square feet.

The Ideal Furnace Co. of Chicago has been incorporated to manufacture and deal in heating apparatus. The incorporators are M. H. Ambrose, G. A. L. Bowditch, William Wilson.

Directors of the American Radiator Company have declared the regular quarterly dividends of 1¾ per cent on the preferred and 1 per cent on the common stock of the company, the former being payable on May 15, and the latter on June 30. It was announced that besides declaring the dividends the directors discussed routine business, no mention being made relative to an extra dividend on the common stock out of the earnings of the foreign companies.

ZINC IN BRITISH COLUMBIA.

Consul L. E. Dudley of Vancouver states that the Canadian government recently published the report of a commission appointed to investigate the zinc resources of British Columbia. Concerning the report he adds:

"The conclusions drawn are that although the zinc industry is yet in its infancy in British Columbia, it is capable of great development. While several of the mines now being worked are essentially zinc mines, there are some silver-lead mines in which zinc blende is found in considerable quantities. Until recently the zinc in the silver-lead ores was regarded as an impurity to be gotten rid of by the easiest and cheapest means possible. The increased demand for zinc of late has made valuable as a by-product this zinc blende, which was formerly a troublesome impurity. The commission regards 15,000 tons of zinc ore of 50 per cent grade as a liberal estimate of the present annual production of the Slocan district, and it is calculated that the Ainsworth district can produce 100 tons daily of 50 per cent ore. There are many mines and prospects in other portions of the province which are supposed to carry zinc in paying quantities. A zinc smelter has been established at Frank, Alberta, the plant being close to a coal mine and on the route from the mines to the market. The large amount of fuel required in reducing zinc ore renders it necessary that coal shall be near the smelter. Coal can be delivered at the Frank smelter at less than $1 per ton."

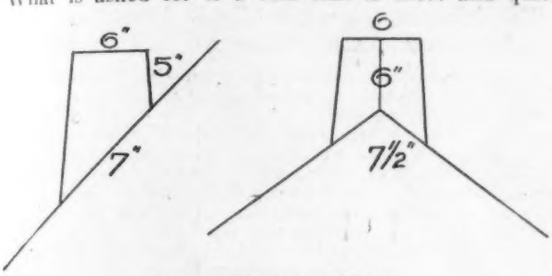
CUTTING STEEL WITH YARN.

What the drop of water does to the hardest stone is only a circumstance to what a thread of yarn can accomplish. Major McClaughry, warden of the Federal prison at Fort Leavenworth, once found a prisoner who was supposed to be pounding stone working away at one of the bars to an outside window. The man finally admitted what he was doing and was induced to give a demonstration. A grating of the same description was placed in his cell, and a guard stationed over him to exact the proof of the statement. With the limestone dust and silicate from the stone pile, the yarn from his sock and a little water this man cut the bessemer steel bar in 18 working hours. With some fine emery, a chalk line and two wooden handholds to save his fingers he made the other clean cut of the bar in five hours, proving the matter to the guard's satisfaction.

Tinshop

SIMPLE PATTERN WANTED.

A request is made by J. W. Callaghan, 1314 Third street, Sacramento, Cal., for a snap rule for cutting a roof safe for one-fourth or one-third pitch, and also a pattern for a roof safe for the cone of a roof. Out in California a great many flaring roof plates for safes are made, according to Mr. Callaghan, and the rules in the tinners' book are said to be too laborious and to take up too much time to be sufficiently useful. What is asked for is a rule that is short and quick



Patterns Wanted for These.

and that will require very little trimming to get the right pitch. Mr. Callaghan states that they make from one-sixth to one-half inch pitches, and often make a 15-inch raise in 12 feet and very frequently make them in two pieces for large stacks, the roof plate or roof jacket being made and put on after the stack is put up, and in such cases they are made of two pieces. In certain snowy parts of California the upper part of the roof jacket or safe is made to lap over the tin about three inches, and they are clamped or bolted together so as to make the combination water-tight. THE AMERICAN ARTISAN will be pleased to receive communications and drawings relating to this problem.

The following is submitted by Henry Meyer, Beckley, W. Va., as a quick rule for cutting a roof safe:

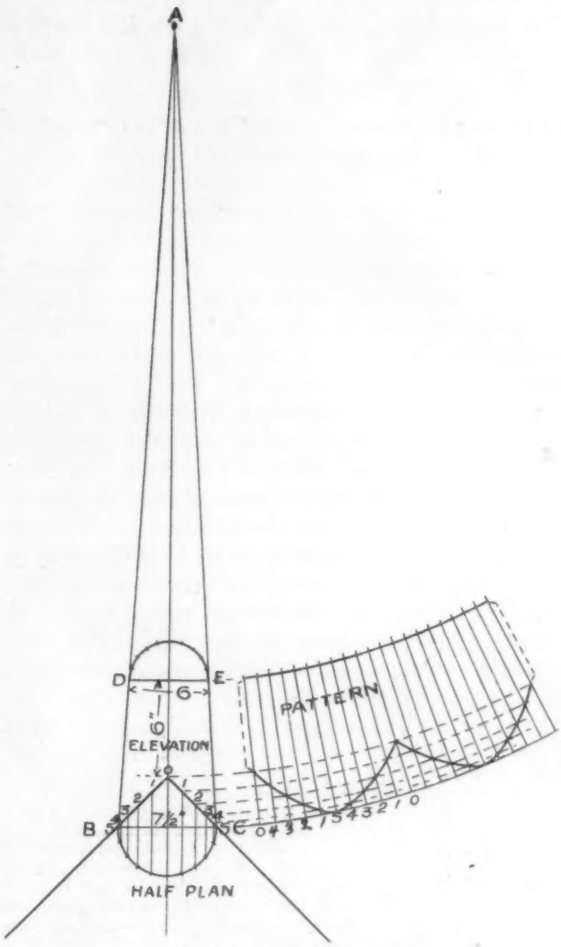
To THE AMERICAN ARTISAN:

I am sending you what in my opinion is a quick rule for cutting a roof safe.

Mark off circumference of lower base which is 22 inches, allowing for lap. Next draw center line 5 inches high, then mark upper circumference 18¾ inches, allowing for lap. For ½-inch pitch measure on center line 3½ inches. Draw line by free hand same as for elbow. For ¼-inch pitch measure 1¾ inches on center line. For ⅓-inch pitch divide 7 inches by 3 inches and measure same on center line, which would be 2⅜ inches nearly. Anyone well acquainted with cutting elbows should cut this without very much trimming. The best and quickest way is to develop pattern for different angles and keep same for future use.

The pattern for the roof safe is made as follows:

Draw a half plan and elevation according to measurements. Then divide upper and lower base into equal spaces as shown. Set the dividers from A to C and from A to E. Mark off stretchout. Step off spaces equal in number to those in plan, with dividers set from A to C. Project the points 5, 4, 3, 2, 1, 0,



Pattern for Roof Safe.

etc., of the elevation and carry them by developers to the stretchout, completing the pattern as shown.

Respectfully,

Beckley, W. Va. HENRY MEYER.

CASSENS' IDEAL EAVES TROUGH.

The Cassens Mfg. Co., of Edwardsville, Ill., whose specialty is largely in the line of Cassens' Ideal Eaves Troughs, a recently patented device which sustains the eaves trough and keeps it in position and in repair under conditions which so commonly destroy all guttering devices upon houses through accumulations of ice or dirt or wet leaves and through conditions which permit the guttering to become filled up with refuse matter of these several kinds is meeting with well deserved success in this item in particular. The device provides first for a thorough supporting of the eaves trough in a perfectly substantial manner and beyond this it provides for covering up of the entire trough in a manner which precludes the possibility of foreign substances entering it while there is left free access and free passage to the water coming from the roof. This eaves trough is guaranteed to take from 125 to 185 gallons of water per running foot in one hour. It excludes positively everything except liquids. It is readily adjustable and the complete device may be put into place either before or after putting on the roof. The device is a thoroughly practicable one which could hardly fail of meeting the exceeding favor with which

it has been received by the trade. Good illustrated trade literature on application. In writing kindly mention THE AMERICAN ARTISAN.

CINCINNATI MASTER SHEET METAL WORKERS MEET.

The Master Sheet Metal Workers' Association of Cincinnati and vicinity held a very enthusiastic meeting at Richelieu Hall, Ninth and Plum streets, Cincinnati, on the afternoon of May 5, at which several new additions were made to the membership of this local body. The meeting was well attended by the members of the association and every sheet metal jobbing house in Cincinnati was represented. There were also present R. L. Couch and Wm. E. Miller of Dayton, O.; E. G. Heartick and W. C. Wulff of Louisville, Ky., and Daniel Stern of THE AMERICAN ARTISAN. The object of the meeting was to discuss trade protection, and as all the local jobbers appear to be in sympathy with them the master sheet metal workers of Cincinnati and vicinity will have no difficulty in securing the trade protection they deserve.

President Thos. Lee delivered an address on "Benefits of Organization." He said:

The benefits of organization are so many and are being added to so constantly that it is impossible to tell of all or even one-half of them. If some benefit is not derived from organization, why did the original thirteen colonies which have now expanded into the greatest power on earth organize? The men of those days saw that organization was necessary because it was impossible to endure the actions of the mother country any longer. We were very much in the same boat as our forefathers about the first of last June; it was either organize or endure what the union wanted to thrust upon us. Well, we organized and stood by one another and finally won our battle.

This was the most important work we have yet done and it shows the great benefit to be derived through organization. No man could have won this battle single-handed, and had we lost no man could have run his business single-handed, for the walking delegate from Local No. 141 would have been on hand every time a man was hired or discharged to give his good advice as to what you should do. He would also advise us how much work each man should do in eight hours, and how many apprentices each shop should have. It is hard to realize the vast amount we have accomplished by defeating Local No. 141, but we must not stop here, we must organize thoroughly. We want every sheet metal worker who is worthy of becoming a member of our body to join us and then we can say that Local No. 141 does not exist to our knowledge, and if they are not recognized by any of us they do not exist, for they can not.

We have not organized to down the workingman and compel him to work for less wages, but we have organized to protect ourselves. It is true, as they say, they have organized for the same purpose, but there is a right way to do this and there is a wrong way. I believe you will all agree with me that they do not follow the right way. We will pay a mechanic what he is worth, but we don't want a $12 man to say that his wages are to be based on 45 cents an hour when he has a hard time proving that he is worth $12. I know that by meeting here we will in time know the true mechanics that are in Cincinnati, and they will be the ones that we will employ, and the handy man or helper will then have to leave or quit the business.

The jobber as you all know does not treat the dealer as he should. In other words he will retail, no matter how small the quantity, and his price to the party buying is about the same as it is to you. To illustrate how this is done, only a few weeks ago I had a job lining some grain chutes for a large elevator in this town. My men lined a chute in the afternoon, and early next morning I was informed by telephone that they would finish the job themselves. Now they could not have done this if Mr. Jobber had not sold them the iron. The jobber can't afford to lose our trade and it would be a little unhandy to get along without him at times. We don't want to get along without him. They are all broad-minded enough to see this question as we do, and we will settle it before long. If one of us went to a jobber with this complaint would he listen to us? No. But when we go as an organization they will be glad to see us on any question of mutual interest.

The well-to-do sheet metal workers in Cincinnati are so scarce that one couldn't be found with a search warrant. But we do not want to become rich in a year. What we want is a legitimate profit on what we produce or sell. I know that we are not getting this now, but we should, and I believe that it would be a good plan to adopt prices for certain classes of work, but it must be borne in mind that if these are adopted we must all live up to them. I have given our secretary a list of prices handed me by Mr. Walsh, one of our members from Texas, who called on me last week, and I would suggest that each of you look at this list carefully, for I know that if Cincinnati cannot boast of a millionaire sheet metal worker Texas surely can or will in a few years.

Gentlemen, we don't want to rob the public, but we can get better prices if we all ask them.

I have only spoken of a few of the many benefits to be derived by organization, but I want to say that every organization that does not work in peace and harmony will surely fail in its efforts. We should therefore do our utmost to make this a permanent institution, for I know that we will all benefit by it.

The following paper on "Trade Protection" was read by Wm. E. Miller of Dayton:

The Secretaries' Association is, from what I can see, one of the greatest things in the upbuilding of association work for the following reasons:

First, it keeps each and every local in touch with the other, giving information to sister cities; the amount of wages paid in certain places, telling what kind of mechanics certain persons are, thus protecting ourselves from being intruded upon by the unprincipled man who jumps from one place to another, just to see where he can get the most compensation for what services he renders. Ofttimes have we been caught by just such a man and his leaving us just when we were in need of him most.

Second, it gives each and every local an insight as to labor troubles that might be brewing in other cities.

Third, as a secretary, you are present at all the local meetings and are on the inside of all business transacted at the meetings, thus being able to cope with questions that will naturally arise. You will be better able to transact business with greater rapidity at the national conventions, for secretaries should by all means attend the national affairs.

Fourth, as secretary, names of workmen applying for positions should be recorded, so they can be easily found and sent to any one needing help. Should a master need help, the secretary should be notified, and should he be applied to by any one for work, he should take his name and address and report it to the secretary, who keeps a record for this purpose.

I will now dwell briefly upon the trade's protection. We masters of Dayton are very nicely organized, being almost solid, only about four still remaining out of the association. We have the promise of the wholesale houses in our city that they will sell no person unless he has an established place of business, and expects to remain in the trade. We are, however, asking a little bit too much of our jobbing houses in not allowing them to sell outside of the trade. As an example, I will take the register business, and show you the other side of this same question.

As I understand it, the register manufacturers require a specified number of registers to be bought before placing you on the jobbers' list, to allow you the same price the jobber gets. You bind yourself to buy this amount knowing that you will not use them all, but you jump in and do the wholesale act, and take the retail end of the string also. You have asked the protection of the wholesale houses; then why not give them some in return, and not invade their trade without ceremony? In order to get the jobber's price on these registers, why not make arrangements with the furnace manufacturers to supply just what you need at the price and leave the other trade alone? You will not be compelled to pay out $1,000 per year for some thing you can pay $500 for. There have been times without number that I myself have been asked to buy registers by my brother masters, but I have refused every time, and bought through what I thought the right channel. In return for this, the wholesale houses will, we think, be very thankful to us and stop resorting to a very dirty and mean way of cutting each other's throats by billing goods out at one price and allowing the customer to pay for same at another price. Then the small dealer or master, who has not been waited upon by a representative of these houses so named, will be in just as good shape to give a good price as the others, because he has bought his goods at the same price.

In conclusion I would say that a little missionary work might be well to help in the upbuilding of association work. This was very clearly demonstrated this spring. Not having very much work in the shop, I started out, going to Miamisburg, Franklin, Middletown and Germantown, and got very good promises from every one upon whom I called. Up to date, however, the applications have failed to materialize, due probably to the fact that I did not press them hard enough. I next went to Xenia, and with better success than before, for every master in Xenia gave an application and

money, each claiming it was worth it to be informed of the other fellow's "dead beat" list so that he would not get beaten himself by the same customer.

A very interesting talk on the subject of "Trade Protection" was delivered by E. G. Heartick of Louisville.

After the formal meeting in the lower hall the company adjourned upstairs, where luncheon was served during which an informal talk was had and music rendered. The gathering was voted as having been a huge success.

A HANDSOME CATALOGUE.

Catalogue "A" by Wm. Foster & Son of 1000 E. Carpenter street, Springfield, Ill., is a magnificent display of the company's products in the lines of pressed steel ceiling and side walls and of the different elements and units that go to make up the completed designs thereof. In this catalogue there are taken up the many parts that contribute to the completed walls and ceiling and these are of a character which give evidence of much thought, careful designing and the best of mechanical ability and treatment in the perfection of their manufacture. In this department of catalogue A there are utilized 35 pages, each of which becomes an almost complete art study in itself. Following these pages there are 50 pages devoted to large full page illustrations of quarter ceilings and large wall designs that run to all of the popular schools of art that are known to the steel ceiling field of endeavor and these patterns are worked out in thoroughly clean, good and harmonious designs that are distinctly attractive and altogether pleasing from both the artistic and practical points of view. In its arrangement the catalogue besides presenting a highly artistic aspect also provides a clearly practical understanding of the manner in which the details of units of work of this class are brought into harmonious pleasing wholes, as in each instance of the large completed designs there is made known in its connection the composition of the complete affair as indicated in the numbers of the various illustrated units that enter into its composition. This is a new feature in catalogue work of this class and it will be found of the greatest interest to dealers and workers in metal ceiling and wall placing. The catalogue contains 88 pages and cover. As stated all of the best art schools are represented in the designing which is illustrated in this volume. The illustrations are presented in photo half tone representations, hence they are completely exact and thoroughly reliable. The work is in oblong form with the pages opening the long way and its size is 9x12 inches. The printing of the illustrations and the type matter has been admirably executed. The many designs of ceilings, wall sections, and their units and the rock and brick faced sidings stand out beautifully in their printed forms. The text of the work as prepared by its publishers is distinctly good and thoroughly comprehensive in all of its details. The work is put up under a tasteful cover in dark green flexible board with a thoroughly good exterior front title page done in brilliant red. Copies of the catalogue are available upon application to the address herein indicated. In writing for it kindly mention THE AMERICAN ARTISAN.

SUCCESS WITH SPECIALTIES.

Ferdinand Dieckmann, Station B, Cincinnati, O., has given the trade at least two very good examples of the successful handling of specialties. One of these that is well known to the trade is in the one piece Conductor Pipe Elbow of galvanized iron which was originated and patented by Mr. Dieckmann and of which he has made a prominent success.

At the present time he is pushing along a new specialty in the form of Locked Seam Tubing and Tubing Elbows therefor, and is having most gratifying success with these items. The tubing runs to 1, 1¼ and 1½ inch diameters. It is made in galvanized form in a most satisfactory manner in which the tubing is galvanized after its formation, and it is also produced for speaking tubes and other like purposes in extra heavy tin of bright and high standard quality. The elbows, which are offered in a number of angles, naturally conform to the tubing sizes in their uses, and are in one piece patterns. In their galvanized forms they also are galvanized after formation. Both the galvanized and tin patterns are made in exceedingly exact measurements and they are finding their way into the market not only for regulation uses but they are put into uses that to a very large extent have never been thought of before. This no doubt comes about because of their ready availability, their quality and the perfection in which the goods are made. The goods are used largely for refrigerator and ice box drains, for speaking tubes, for conductor work on porticos, for lighting systems, incubators and a variety of other uses. These goods are worth knowing considerable about because they are such good goods and because they fit into so many unexpected situations. Good literature relating to them may be had upon application to the company by addressing as herein indicated. In writing kindly mention THE AMERICAN ARTISAN.

NOTES AND QUERIES.

AWNINGS AND TENTS.

From Ward & Packingham, Granville, Ill.

Please give us two or three addresses of awning and tent manufacturers of Chicago?

Ans.—Geo. B. Carpenter & Co., 200-208 S. Water street; United States Tent & Awning Co., Randolph and Union streets; Foglesong Bros., 800 W. Lake street.

STEEL DAMPER CLIPS.

From The Klinsmann Company, Fargo, N. D.

Kindly give us the names of manufacturers of steel damper clips?

Ans.—S. M. Howes Co., Boston, Mass.; Sayre Stamping Co., Sayre, Pa.

CAST DAMPERS.

From The Klinsmann Company, Fargo, N. D.

Kindly give us the names of manufacturers of cast dampers?

Ans.—Arcade Mfg. Co., Freeport, Ill.; Berger Bros. Co., Philadelphia, Pa.; Fanner Mfg. Co., Cleveland, O.; Griswold Company, Erie, Pa.; Kramer Bros., Dayton, O.; Chas. Millar & Sons, Utica, N. Y.;

Taylor & Boggis Foundry Co., Cleveland, O.; A. C. Williams, Ravenna, O.

WIRE CLOTH.

From C. E. Mueller, Mt. Pulaski, Ill.

Where can I get galvanized wire cloth for windows and doors?

Ans.—The Gilbert & Bennett Mfg. Company, 507-59 Clark street, Chicago; Barbee Wire & Iron Works, 44-46 Dearborn street, Chicago; Clinton Wire Cloth Company, 30 River street, Chicago; F. P. Smith Wire & Iron Works, 100-102 Lake street, Chicago.

GASOLENE GAS MACHINES.

From Evans Bros. & Kinney, Newton, Kans.

Where can we get gasolene gas machines for lighting and cooking purposes?

Ans.—Matthews Gas Machine Co., 40 Dearborn street, Chicago; Detroit Heating & Lighting Co., Detroit, Mich.

ITEMS.

The Clifton Enameling Co. of Clifton Heights, Pa., has been capitalized at $10,000. William Hughes is one of the incorporators.

The St. Louis offices of The American Sheet and Tin Plate Company are now located on the sixteenth floor of the Third National Bank Building. The change was made on April 20th.

The Delphos Mfg. Company of Delphos, O., is building an addition to its plant which will measure 60 x 80 feet, and after the latter has been completed a large office building, it is said, will be erected.

A very fine building is nearing completion in Charlotte, N. C., for the Y. M. C. A. G. G. Bay & Company were the contractors for the sheet metal work and Follansbee Bros. Co., of Pittsburg, furnished the roofing tin that was used. Needless to say it was "Scott's Extra Coated" tin.

T. P. Walsh, a prominent sheet metal cornice manufacturer and roofer of San Antonio, Tex., was a caller at the offices of THE AMERICAN ARTISAN this week. Mr. Walsh, who came to Chicago for the purpose of buying an outfit for making fireproof doors and windows, has been largely instrumental in effecting an organization of seven locals in the State of Texas; at San Antonio, Galveston, Houston, Dallas, Fort Worth, Waco and Austin.

An excellent feature of Iwan's volcano revolving chimney top, made by Iwan Brothers, manufacturers of hardware specialties, Streator, Ill., is the upward sloping opening in the back of the hood, which creates a constant upward draft, no matter how depressing the atmosphere. In this manner, dependence upon the wind, in getting fires to burn satisfactorily, is obviated, and a regularity of draft is acquired. The chimney tops come in from six to twelve inch sizes, and are obtainable from jobbers of hardware and tinners' supplies.

OBITUARY.

Hiram W. Smith.

Hiram W. Smith, president of the Rochester Screw Co., of Rochester, N. Y., died on April 26 after a protracted illness. Mr. Smith was born in Batavia, N. Y., in 1841, and at the outbreak of the Civil War he enlisted and served until the close of the contest. He was badly injured at the battle of Malvern Hill and the deafness which bothered him during the remainder of his life was attributed to hardships undergone while in the field. Mr. Smith was also interested in the Standard Screw Company and in the National Bank of Rochester, besides being a director of the Detroit Screw Works, of Detroit, Mich. He is survived by a wife, one son and a daughter.

C. C. Bunnell.

C. C. Bunnell, who for a number of years conducted a hardware business at Lewiston, Idaho, died on April 17 of paralysis. He was among those Pacific Coast pioneers who first went to Idaho during the period of the mining stampede. Mr. Bunnell settled down in Lewiston in 1862, retiring from business 10 years ago. He was 73 years of age. Mr. Bunnell was a public-spirited citizen and was among the first to erect a brick building in Lewiston.

James T. Reid.

James T. Reid, a highly esteemed citizen of Norfolk, Va., died on April 27 in his 69th year. He was for a number of years a member of the firm of Chas. Reid & Sons, stove dealers and exporters. Mr. Reid had been in declining health for several months, his death resulting from a complication of maladies. He is survived by a wife, two sons and four daughters, his brother, Geo. C. Reid, being the senior member of the firm mentioned.

William Nathan Throckmorton.

William Nathan Throckmorton, a retired hardware manufacturer of New York City, died on April 30, of heart disease. He was born in Freehold, N. J., in 1834. Mr. Throckmorton established the firm of Asten & Throckmorton. He retired in 1876. He was the first mariner to sail from the port of Providence, and likewise one of the first to engage in coastwise trade. He is survived by a wife, three sons and two daughters.

John Henrich.

John Henrich, prominent in hardware and contracting circles in Buffalo, N. Y., died suddenly on April 28 of heart disease, while he was engaged in supervising some repairs that were being made in a church. The deceased was 63 years old and had lived in Buffalo all his life. He has been in business for 41 years and was highly esteemed in the community. He is survived by three sons and four daughters.

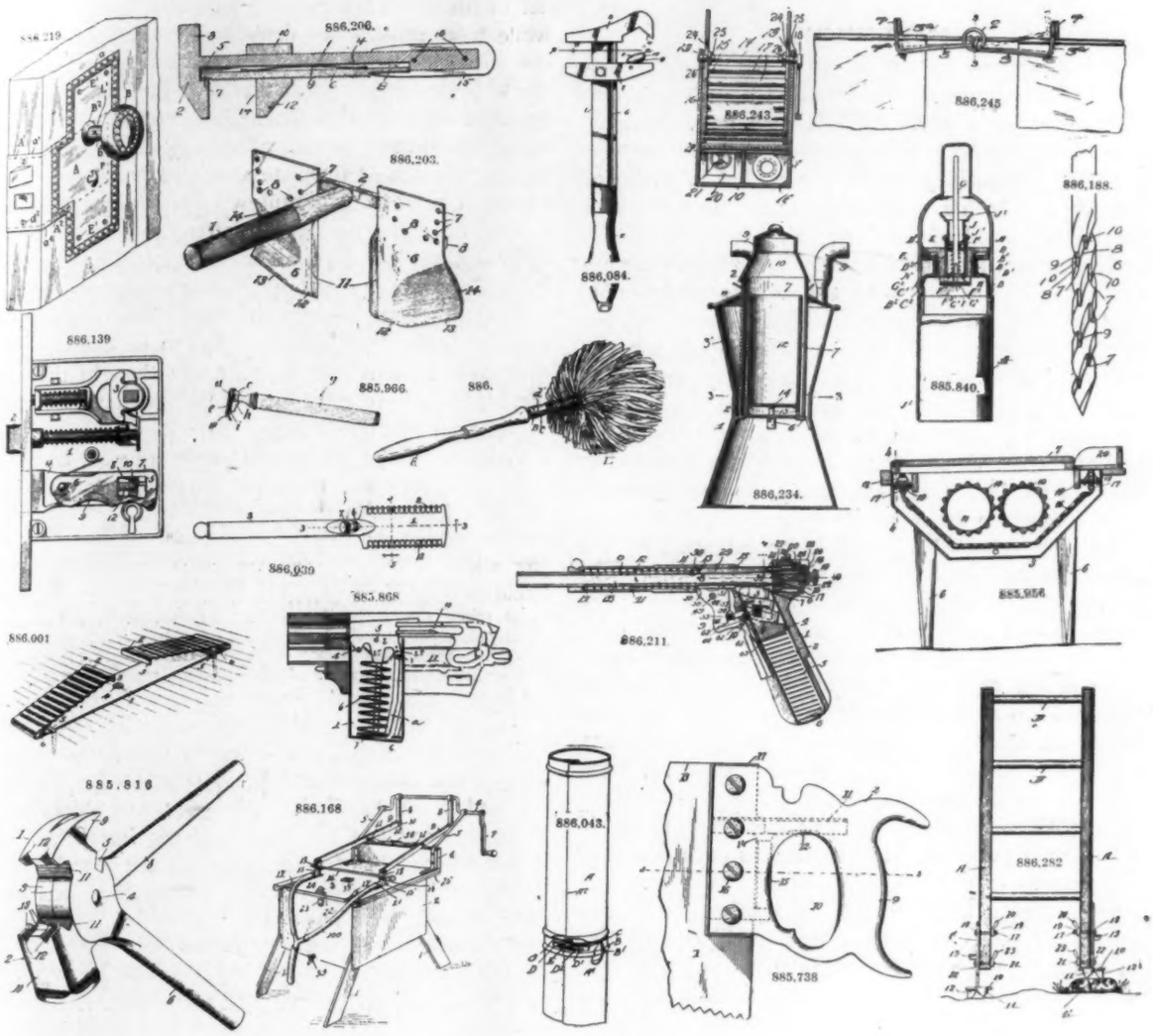
Thos. B. Rayl.

Thos. B. Rayl, formerly the head of the T. B. Rayl Company, hardware, stove and tin dealers, of Detroit Mich., died on April 24, in the 71st year of his age. Mr. Rayl was one of the most prominent citizens of Detroit, though not having been engaged in active business for a number of years.

Charles Wheeler.

Charles Wheeler, a well-known hardware man of McPherson, Kas., died on April 24, after a brief illness. Mr. Wheeler located in McPherson in the early eighties and was one of McPherson's respected and valuable citizens.

NEW PATENTS.



585,738. Saw. John Dowling, Olympia, Wash. Filed June 29, 1906, Serial No. 324,013. Renewed July 19, 1907. Serial No. 384,612.

885,816. Fence-Maker's Combination-Tool. Jacob E. Weyeneth, Danbury, Nebr. Filed June 21, 1907. Serial No. 380,137.

885,840. Oil-Can. Joseph W. Cushman, New York, N. Y. Filed Oct. 30, 1905. Serial No. 285,219.

885,868. Magazine for Firearms. Arthur W. Savage, Utica, N. Y., assignor to Savage Arms Company, Utica, N. Y. Filed Nov. 25, 1904. Serial No. 234,301.

885,956. Washing-Machine. Ezekiel Roberts, Stillwater, Okla. Filed Sept. 23, 1907. Serial No. 394,133.

885,966. Safety-Razor. Gerhard Tittmann, Foche, near Solingen, Germany. Filed Apr. 30, 1907. Serial No. 371,116.

886,001. Duplex Door-Check Holder and Buffer. Isaac P. Kibbs, Cureo, Tex. Filed Feb. 8, 1908. Serial No. 414,867.

886,039. Safety-Razor. Henrie Clauss, Fremont, Ohio. Filed May 9, 1907. Serial No. 372,715.

886,043. Stovepipe-Connector for Nesting Pipes. Henry Ditchburn, Rosseau, Ontario, Canada. Filed May 21, 1907. Serial No. 374,818.

886,046. Dusting-Brush. Richard N. Fickett, Atlanta, Ga. Filed May 28, 1907. Serial No. 376,149.

886,046. Wrench. Harold B. Sohn and Franklin C. Miller, Allegheny, Pa. Filed June 28, 1907. Serial No. 381,-305. Renewed Mar. 20, 1908. Serial No. 422,235.

886,139. Lock. Alfred Lawrence, Stamford, Conn., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn. Filed Nov. 20, 1907. Serial No. 403,034.

886,168. Clothes-Washing Machine. Lawrence M. Adams, Fort Steele, British Columbia, Canada. Filed May 29, 1907. Serial No. 376,237.

886,188. Gun-Cleaning Rod. Benjamin E. Clement, Humboldt, Tenn. Filed June 12, 1907. Serial No. 378,614.

886,203. Garden Hoe. Thomas Grasshaw, Columbia, Ill. Filed Nov. 18, 1907. Serial No. 402,706.

886,206. Wrench. Samuel A. Gruber, Pittsburg, Pa. Filed June 18, 1906. Serial No. 322,163.

886,211. Pistol. Kumazo Hino and Tomijiro Komuro, Ushigome, Tokyo, Japan. Filed Sept. 23, 1904. Serial No. 225,681. Renewed Feb. 7, 1908. Serial No. 414,780.

886,219. Lock. Henry F. Keil, Bronxville, N. Y. Filed May 14, 1906. Serial No. 316,654.

886,234. Washboiler. Milo A. Morton, Brownwood, Tex., assignor of one-half to Samuel W. Johnson, Brownwood, Tex. Filed Aug. 9, 1906. Serial No. 329,911.

886,243. Washing Machine. Minnie A. Patten, Milltown, Ga. Filed Oct. 13, 1906. Serial No. 338,818.

886,245. Clothes-Pin. William A. Pugh, Dadeville, Mo. Filed July 3, 1906. Serial No. 324,646.

886,282. Ladder. Jason Waters, West Sutton, Mass. Filed Feb. 28, 1906. Serial No. 303,403.

Trade Report.

HARDWARE

The hardware market is beginning to show evidence of activity along the lines that have been somewhat quiet for a while. While such goods as nails and wire have been in fairly good demand the seasonable business in garden tools, etc., at this time of the year has been somewhat quiet, due no doubt to a protracted period of cold and rainy weather. Manufacturers and jobbers, however, are not registering many complaints regarding the volume of business, notwithstanding these adverse climatic conditions, but if disagreeable weather continues to prevail for any length of time a condition of temporary depression may be brought about. The market, however, appears to be gaining considerable headway, and towards the end of the month a normal condition is anticipated in some of the lines that have been somewhat dormant. Prices continue to remain firm and no concessions have been reported. There is no cessation of the heavy demand for both barb and smooth wire. The heavy business in wire nails still continues though a slight falling off in orders has been reported from some of the mills. The demand for builders' hardware is not as great as would be expected at this season of the year, the slackness in this line also being attributed to untoward weather conditions, which to a certain extent, invariably exert an influence upon this branch of the trade.

Conditions in certain parts of the west and northwest would indicate that many dealers have permitted their stocks to run down, for reports have been circulated that a large number of wholesalers in that section of the country have been working over time in order to catch up on orders that have been held up for some time. The seeding reports from the farming sections are of a cheerful character and about July, when the crop reports begin to come in, it is expected that business in the west will be resumed on a large scale.

Very encouraging reports have been received from certain sections of the south where both manufacturers and jobbers are viewing the situation with much confidence. In many of the stove manufacturing centers such as Birmingham, Louisville and Nashville, the factories are nearly all running on full time.

Wire nails are quoted at $2.23; painted barb wire $2.38; galvanized barb wire $2.68; smooth annealed wire $2.08; smooth galvanized wire $2.38; galvanized staples $2.63, and polished staples $2.23. These quotations relate to car lots to jobbers. Quotations to retailers in car lots are five cents higher and on less than car lots fifteen cents higher.

Iron cut nails are quoted in car lots to jobbers, $2.23; to retailers, $2.28; steel cut to jobbers, in car lots, $2.03; in car lots to retailers, $2.08.

TIN PLATE.

The fact that the American Sheet & Tin Plate Company has put in operation its plant containing 11 tin mills at McKeesport, Pa., is believed to be indicative of an increase in demand for tin plate. This plant had been idle since last fall and it is the last of the important tin plate plants of the leading interest to be started. With the mills it now has in operation this company, can, without doubt, produce as large a tonnage of tin plate as it ever has done. The Sabraton plant at Morgantown containing ten mills, started up again on May 4 after having been shut down for several days. The American Sheet & Tin Plate Company is now operating 213 mills, the largest number in operation since last June. The independent tin plate plants are also reported to be operating at their full capacity. It is generally thought that tin plate prices have experienced the greater part and perhaps all of their decline.

Coke tin plate, 100-pound basis, 14 x 20, $3.70 f. o. b. mill, Pittsburg district. Terms, 30 days, less 2 per cent for cash in 10 days.

For prompt shipment, f. o. b. mill:

Coke, tins, 14x20, I. C.	3.85@3.90
Coke, tins, 14x20, 100 lbs.	3.70@3.75
Coke, tins, 14x20, 95 lbs.	3.65@3.70
Coke, tins, 14x20, 90 lbs.	3.60@3.65
Charcoal, terne, 20x28, I. C.	7.30@7.35
Charcoal, terne, 20x28, 200 lbs.	7.00@7.05

Usual differences for odd sizes and weights.

SHEETS.

The sheet market is in a fairly satisfactory condition, there being a very good demand for the galvanized product. Orders, however, are chiefly confined to small lots for immediate requirements. The regular schedule of prices is being fairly well maintained, although reports come in that there has been some cutting by a few mills.

The schedule of prices is as follows:

Gauge.	Galvanized.
30	$3.95
29	3.70
28	3.55
27	3.35
25-26	3.15
22-24	2.95
17-21	2.80
15-16	2.65
13-14	2.55
12	2.55
11	2.45
10	2.45

COPPER.

There is nothing much new to report in the copper market, which still appears to remain inactive, owing no doubt to the shutting down of a large number of electrical enterprises resulting from the recent financial stringency. All things considered copper at present prices looks cheap, the only question being that whether before the demand improves the market may not further decline. On the New York exchange during the past week all grades of copper were reduced ⅛ of a cent in the asking prices, making lake $12.62½ to $12.75; electrolytic $12.50 to $12.62½; and castings $12.25 to $12.37½.

Extreme fluctuations for the year:

	Highest.	Lowest.
Electrolytic copper, spot	13¾	12¼
Lake copper, spot	13⅞	12⅜
Casting copper, spot	13½	12⅛

SHEET ZINC.

No change is noted in the condition of the sheet zinc market, in which business continues in small proportions. Orders are chiefly for lots to supply immediate needs. Prices are steady on the basis of $7 per 100 pounds f. o. b. smelter, with the usual extras and discounts.

SPELTER.

Conditions in the spelter market remain unchanged, business being light. It is claimed that negotiations for export in New York have done the market harm rather than good. Producers have been selling quietly to jobbers and consumers. The London market has declined to £20 12s 6d, New York prices being $4.55@4.65.

Extreme fluctuations for this year:

	Highest.	Lowest.
Spot, London	£22 0 0	£19 17 6
Spot, New York	4.80c	4.32½c

STEEL BILLETS.

Steel billets have been cut $3 per ton in the Pittsburg district and the agreement between leading producers which has been maintained since last fall is in danger of immediate dissolution. The present high price of billets as compared with pig iron is generally considered the most vulnerable point in the price schedule on crude steel and finished products. In the Chicago market rolling billets are quoted at $29.50 and forging billets at $31.50, for Chicago delivery. It is figured that with basic iron at $15 at the furnace, billets can be produced at $23, the estimate allowing $1 for freight on the pig iron and $7 for conversion.

IRON BARS.

Quietness is characteristic of the iron bar market and very little new business is reported. The Pittsburg mills are said to be operating at not more than 50 per cent of their capacity. Prices are being shaded, it is said, by a few small mills. Iron bars for the Pittsburg district are quoted at $1.50.

PIG IRON.

Much interest has been taken in the pig iron market during the past week, especially in connection with the general meeting of the leading pig iron interests of the country which was held at the United States Steel Company's office in New York on May 7. At the close of this meeting the following statement on the pig iron situation was issued by the representatives of the leading manufacturers:

"Owing to the fact that much erroneous information has been disseminated concerning the purpose of this meeting of pig iron and ore producers it is thought desirable to make a statement which embodies the views of all present.

"The meeting was called for the purpose of hearing reports from the blast furnace interests of all sections of the country in regard to general conditions as affecting particularly the foundry iron trade. Prices of pig iron were only incidentally referred to. There is no agreement to maintain the price of pig iron. Producers in different sections of the country are making quotations based on their cost of manufacture and the measure of their necessities. Prices are now $8 or more below the high mark of eight months ago and are almost without exception below the cost of production at northern and eastern furnaces and with the exception of a favored few below cost at southern furnaces.

"Information received indicated that producers of Lake Superior ore are materially curtailing production and from the information received it is believed the price of ore for this reason will not be reduced below the price of last year."

CHICAGO MARKET.

Lake Superior charcoal	$20.50@21.00
Northern foundry No. 1	17.50@18.00
Northern foundry No. 2	17.00@17.50
Northern foundry No. 3	16.50@17.00
Southern foundry No. 1	16.35@16.85
Southern foundry No. 2	16.35
Southern foundry No. 3	15.85@16.35
Southern foundry No. 4	15.35@15.85
Southern No. 1 soft	16.35@16.85
Southern No. 2 soft	16.35
Southern gray forge	15.35@15.85
Southern mottled	15.10@15.60

PITTSBURG MARKET.

No. 2 foundry	15.40@15.65
Gray forge	15.15@15.40
Bessemer	16.90@17.15
Basic	16.15@16.40
Malleable	16.90@17.15
Southern No. 2	16.40@16.90
Southern forge	15.15@15.40

BIRMINGHAM MARKET.

No. 1 foundry	12.50@13.00
No. 1 soft	12.50@13.00
No. 2 foundry	11.50@12.00
No. 2 soft	11.50@12.00
Gray forge	10.00@10.50

Rogers, Brown & Co., Cincinnati, will say in their weekly report:

"The general situation has changed but little over a week ago. There is the same run of small business for immediate and pressing delivery, with possibly a slight increase in inquiries and sales for more extended period. It is interesting to note that some of the largest consumers are in the market for from six to nine months, and in some instances business has been placed for a year ahead, indicating that present figures are satisfactory to them and make it possible to figure definitely cost of their product for a long time ahead.

"Consumption and production are running along side by side, with little, if any, change one way or the other. There does not appear to be any increase in furnace stocks and the tonnage on consumers' yards is smaller than it has been since the first of the year.

"Southern furnaces continue to take the bulk of the business offering and the total sale of Northern iron during the week would not be any surprising amount.

"There is quite a wide range in prices and in cases where furnaces have had accummulation of certain grades they have been willing to make figures which were no criterion as to the general market. Such efforts have created an erroneous impression as to the feeling of furnaces in some districts.

"Coke is very quiet. Production is off and the whole feature of the coke market is one of apathy."

Matthew Addy & Co., Cincinnati, will say in their weekly report:

"In spite of the fact that we have a distinctively waiting market a great deal more iron has been bought this week than for some time past. Several large orders for prompt shipment have been placed by various pipe foundries and open hearth steel makers which is the main cause of the increased tonnage. Then, there has been some scattering purchasing by consumers who simply could not wait any longer. In fact, some of them put off buying until they were absolutely out of metal, and they have been disappointed in that delivery could not be made by express rather than slow freight. The bane of the market just now is the idea so many consumers entertain that presently some of the large interests in the country instead of trying to hold and steady the market will assume exactly the opposite tactics and smash prices to smithereens in an endeavor to bring their competitors into line. Apparently nine consumers out of ten are full of this idea, and, of course, when a buyer of iron feels certain that before long the largest sustaining force in the market will commence to smash things, naturally he will buy iron only as he needs it. So the development of the pig iron market depends a good deal just now on the development in other directions.

"The railroads are making unusually slow time—not because of a congestion of freight as was the case a year ago, but because of impaired service.

"It is a fact, however, that little by little more iron and coke are being used than was the case some weeks ago."

Current Hardware and Metal Prices.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly.

METALS.

FIRST QUALITY BRIGHT PLATES.

		Per Box.
IC	14x20	$6 40
IX	14x20	7 45
IXX	14x20	8 60
IXXX	14x20	9 85
IXXXX	14x20	11 00
IC	20x28	13 70
IX	20x28	15 70
IXX	20x28	18 15
IXXX	20x28	20 55
IXXXX	20x28	22 95

COKE PLATES.

Cokes, 180 lbs	IC	20x28	$ 8 50
Cokes, 200 lbs	IC	20x28	9 00
Cokes, 216 lbs	IC	20x28	9 50
Cokes, 270 lbs	IX	20x28	11 25

PIG IRON.

North'n Fdy., No. 1	$17 50@$18 00
North'n Fdy., No. 2	17 00@ 17 50
North'n Fdy., No. 3	16 50@ 17 00
Southern Fdy., No. 1	16 35@ 16 85
Southern Fdy., No. 2	16 35@
Southern Fdy., No. 3	15 85@ 16 35
Southern Fdy., No. 4	15 35@ 15 85
Southern No. 1 Soft	16 35@ 16 85
Southern No. 2 Soft	16 35@
Southern Gray Forge	15 35@ 15 85
Southern Mottled	15 10@ 15 60
Lake Sup. Charcoal	20 00@ 21 00
Southern Silveries, 4% Silicon	17 55@ 18 35
Southern Silveries, 5% Silicon	18 35@ 18 85
Southern Silveries, 6% Silicon	19 35@ 19 85
Jackson Co. Silveries, 6 per cent	18 90@ 19 40
Jackson Co. Silveries, 8 per cent	20 90@ 21 40
Jackson Co. Silveries, 10 per cent	22 90@ 23 40
Malleable Bessemer	17 50@ 18 00
Standard Bessemer	18 40@ 18 90
Alabama Basic	17 35@ 17 85

BLACK STEEL SHEETS.

Nos. 11-12 per 100 lbs.	$2 60
Nos. 13-14 per 100 lbs.	2 65
Nos. 15-16 per 100 lbs.	2 70
Nos. 17-21 per 100 lbs.	2 75
Nos. 22-24 per 100 lbs.	2 80
Nos. 25-26 per 100 lbs.	2 85
No 27 per 100 lbs	2 90
No 28 per 100 lbs.	3 00

GALVANIZED

No. 10 per 100 lbs.	$2 25
Nos. 12-14 per 100 lbs.	2 45
No. 16 per 100 lbs.	2 65
Nos. 17-21 per 100 lbs.	2 85
Nos. 22-24 per 100 lbs.	3 05
Nos. 25-26 per 100 lbs.	3 25
No. 27 per 100 lbs.	3 45
No. 28 per 100 lbs.	3 65

POLISHED SHEET STEEL.

No. 24 per 100 lbs	$4 90
No. 26 per 100 lbs.	5 00
No. 27 per 100 lbs.	5 10
No. 28 per 100 lbs.	5 20

SMOOTH STEEL.

Wood's Smooth, No. 20	$3 05
" " No. 22-24	3 10
" " No. 25-26	3 15
" " No. 27	3 20
" " No. 28	3 30

PATENT PLANISHED SHEET IRON.

Patent Planished Sheet Iron, "A" $10.20, "B" $9 20

PATENT PLANISHED SHEET STEEL.

Dickey Planished Sheet Steel 8½c

SOLDER.

XXX Guaranteed ½ & ½ per lb.	18 c
Commercial ½ & ½ per lb.	17½c
No. 1 Plumbers	15½c

SHEET ZINC.

500 lb. Casks case, per cwt.	$8 00
300 lb. Casks per cwt.	8 00
Sheets per cwt.	8 00

COPPER.

Copper sheet, 100 lbs. over, base 20c

TIN PIGS AND BARS.

Banca, pigs, per lb	29 c
Straights, pigs, per lb	29 c
Straights in bars, per lb	33 c

LEAD.

American Pig	4 c
Bar	4 c
National (White) brands (in less than 100 lb lots), per lb	8½c
Sheet.	
Full coils per 100 lbs.	$9 00
Cut coils per 100 lbs.	9 50

HARDWARE.

ADZES.

Carpenters'.	
Plumbs	40%
Coopers'.	
Barton's	20%
White's	15%
Railroad	
Plumbs	40%
Ship.	
Plumbs	40%
White's	12½%

AMMUNITION.

Caps, Percussion—per 1,000.	
F. L Waterproof, 1-10s	40c
G D	35c
Musket	60c
Shells, Loaded—	
Loaded with Black Powder	40%
Loaded with Smokeless Powder, medium grade	40 & 5%
Loaded with Smokeless Powder, high grade	40 & 10 & 10%
Union Metallic Cartridge Co.:	
New Club, Black Powders	40%
Nitro Club, Smokeless Powders	40 & 5%
Arrow, Smokeless Powders	40 & 10 & 10%
Winchester:	
Smokeless Repeater Grade	40 & 5%
Smokeless Leader Grade	40&10&10%
Black Powder	40%
Gun Wads—per 1,000.	
Winchester Gun Wads	15%

Powder.	Each.
DuPont's Sporting, kegs	$ 50
" " ½ kegs	2 50
" " ¼ kegs	1 40
Dupont's Sm'k'less. 50-lb. drum	22 45
" " 25-lb. kegs	11 30
" " 12½-lb. kegs.	5 80
" " 6¼-lb. kegs.	2 97
" 1-lb. cans	15
Shot.	
Drop shot, sizes smaller than B, 25-lb. bags, per bag	1 95
Drop shot, B and larger sizes, 25-lb. bags, per bag	2 20
Buck Shot, 25-lb. bags, per bag	2 20
Chilled Shot, 25-lb. bags, "	2 20

ANCHORS

Expansion Screw Anchors 10%

ANVILS

Trenton, 70 to 80 lbs	9½c per lb
Trenton, 81 to 150 lbs	9½c per lb

ASBESTOS.

Board and Paper 33⅓%

AUGURS.

Boring Machine	70%
Irwin's	40&10%
Carpenter's Nut	70%
Hollow.	
Bonney's—list $30.00	75&5%
Stearns, No. 3	36 00
Post Hole.	
Digwell, 8-inch per doz.	12 50
Iwan's Post Hole and Well	40%
Vaughan's, 4 to 9-in., per doz.	6 25
Rafting.	
Snell's	50&5%
Ship.	
Ford's, with or wi'out screw	40-12½%
Snell's " " "	40-5%

AWLS.

Brad.	
No. 3 Handled per doz.	$0 40
No. 1050 Handled "	80
Shouldered, assorted, 1 to 4, per gro.	$1 20
Patent asst'd, 1 to 4 "	85
Harness.	
Common "	95
Patent "	90
Peg.	
Shouldered "	1 20
Patent "	60
Scratch.	
No 1 handled "	4 80
No. 15, socket handled per doz.	1 25
No. 7 Stanley	1 80
Sewing.	
Common per gro.	90
Patent "	90

AXES.

Boy's Handled.	
Lippincott, 3 lb per doz.	$6 00
Falls City "	6 00
Broad.	
Plumbs, West, Pat	33⅓%
" Can. Pat	40%
" Firemen's (handled) per doz	$1, 75
Plumbs, Miners' (handled) "	6 75
Single Bitted (handled)	
Gladiator . 3 to 4 lbs , per doz	$11 00
Flint Edge " " "	9 25
Standard .. " " "	9 25
Elec Chopper, Forest Clipper	10 50
Perfect Premier " "	10 00
Crown " "	7 00
Single Bitted (without handles)	
Gladiator...3 to 4 lbs. per doz.	$8 50
Flint Edge. " "	7 00
Standard... " "	7 00
Electric Chopper" "	8 25
Perfect " "	7 75
Crown " "	8 25
Double Bitted (without handles).	
Gladiator... 3 to 4 lbs. per doz.	11 50
Flint Edge. " "	9 75
Perfect " "	11 00

The above prices on axes of 3 to 4 lbs. are the base prices.

3½ to 4½ lbs advance 25c
4 to 4½ lbs. advance 50c.
4½ to 5½ lbs. advance 75c.

BAGS, PAPER NAIL.

Pounds	10	16	20	25
Per 1,000	$2.50	3.75	4.50	5.00

BALANCES, SPRING.

Frary's	40%
Pelouze	20%

BARS, CROW.

Pinch or Wedge Point..per cwt. $3 75

BASKETS.

Clothes.			
Small Willow per doz.	$7 00		
Medium " "	8 75		
Large " "	10 50		
Galvanized Iron.	½ bu.	1 bu.	1½ bu.
Per doz	$4 75	6 50	8 00

BEATERS.

	Per doz.
Carpet.	
No. 10 Coppered Spring Wire	$0 90
No. 12 Spring Wire	1 10
No. 10 Preston	1 10
Egg.	Per doz.
No. 50 Imp. Dover	$0 75
No. 102 " " tinned	83
No. 150 " " hotel	1 40
No. 10 Heavy hotel tinned	2 10
No. 13 " " "	3 30
No. 15 " " "	3 60
No. 18 " " "	4 20

BELLOWS.

Blacksmiths'	65%
Hand.	
8-inch per doz.	$8 50
10-inch "	10 50
Moulders'.	
12-inch "	12 50

BELLS.

Call.	
3-inch Nickeled Rotary Bell, Bronzed base per doz.	$5 00
Cow.	
High Grade	60%
Kentucky	65&10%
Door.	Per doz.
New Departure Automatic	$6 00
Rotary.	
3 -in. Old Copper Bell	4 00
3 -in. Old Copper Bell, fancy	6 00
3 -in. Nickeled Steel Bell	4 50
3½-in. Nickeled Steel Bell	5 00
Hand.	
Hand Bells, polished	50&5%
White Metal	40%
Nickel Plated	30%
Swiss	40&33⅓%
Silver Chime	33⅓%
Miscellaneous.	
Church and School, steel alloy	50%

Farm, lbs	40	50	75	100
Each	$1.25	1.60	2.35	2.85

BEVELS, TEE

Stanley's, rosewood handle, new list	25%
Stanley's iron handle	25%

BINDING, OILCLOTH.

Zinc	80%
Brass	70&10%
Brass plated	75&5%

BITS.

Auger.	
Extra Double Spur	70&10%
Ford's Car and Machine	40&10%
Triumph	50&5%
Ford's Ship	40&10%
Irwin	50%
Russell Jenning's	25&10%
Clark's Expansive	60%
Steer's " Small list, $22.00	25%
" " Large " $26.00	25%
Irwin Car	45%
Ford's Ship Auger pattern Car	40&10%
Center	40&10%
Countersink.	
No. 18 Wheeler's per doz.	$1 25
No. 20 " "	1 75
American Snail head	75
" Rose "	90
" Flat	75
Mayhew's Flat	1 25
" Snail	1 25
Dowell	
New Jennings	40&10%
Gimlet.	
Standard Double Cut	60%
German Pattern per doz.	$0 60
German "	65
Gouge "	80
Spoon "	80
Countersink "	1 00
Reamer.	
Jenning's Square "	2 50
Standard Square "	75
German Octagon "	75
Screw Driver.	
No. 7 Common "	50
No. 1 Triumph "	1 25
No. 2 " "	1 —
No. 340 Shepardson's "	—
No. 1 Smith's "	—

BLACKING, STOVE. (See Polish).

BLADES, SAW.

Butchers'.
Standard, ¾ & 1¼-in.....40%
Clock Spring.....40%
Star.....15%
Coil.....each, $1 50

Hack.
Disston's.....25&5%
Flexible.....33⅓&5%
Star.....20&5%

Wood.
Jackson's.....per doz. $2 25
Disston's—No. 6, 16, 26 & 045.. 4 25
Triumph..... 3 50
Forest Clipper..... 3 00

BLOCKS.

Snatch.
Wooden.....60&10%
Steel.....50%

Tackle.
Iron Strapped.....70%
Com. Steel.....60%

BOARDS. (New List)

Stove.....50&10%

Wash.
Globe, single.....per doz. $2 50
Globe, double..... " 3 35
Peace Maker..... " 3 00
Crystal Glass..... " 4 00
Brass King..... " 4 00
Nickel Plate..... " 4 15

BOBS, PLUMB.

Carpenters'.
No. 2, iron.....per doz. $0 65
No. 00, " ..... " 1 30
No. 0, " ..... " 1 80
No. 3, lead..... " 2 90
No. 4, " ..... " 3 40
No. 113, brass plated.. " 1 10
No. N30, nickel plat'd. " 1 30
No. N31, " " " 1 85

BOLTS.

Carriage, Machine, etc.
Carriage, ⅜x6 and sizes smaller and shorter.....70&10%
Carriage, sizes larger and longer than ⅜x6.....60&5%
Machine, ⅜x4 add sizes smaller and shorter.....70&10%
Machine, sizes larger and longer than ⅜x4.....60&5%
Elevator.....50-10&5%
Plow.....60&10%
Stove .....80&10%
Tire.....75%
Wagon Box Strap.....70%

Mortis, Door.
Gem, iron.....60%
Gem, bronze plated.....20%

Barrel.
Cast.....60%
Wrought.....
Wrought, bronzed.....50%

Flush.
Wrought .....50&10%

Spring.
Wrought.....
Wrought, heavy.....

Square.
Cast.....50&10%
Wrought.....

BORERS.

Angular.
Miller's Falls.....per doz. $13 00

Bung.
Doz.
Enterprise Mfg. Co 's No 1... $14 00
" " " No 2.. 18 50

BOXES

Mail, No.	1	2	10
Per doz	$3.50	5.00	17.50

Miter.
New Langdon.....15&5%
Stanley's.....30%
Seavey's.....each, $1 50

BRACES.

Barber's ..... 50&10&10@50&10&15%
Fray's Genuine Spofford's.....60%
" Nos. 66 to 146.....50%
" No. 0108..... $3 50
" No. 08..... 2 75
" No. 010..... 2 85

BRACKETS.

Hay-Rack.
Wenzelmann's No. 1, per doz. $9 00
" No. 2, " 9 60

Shelf.
Cast Iron, bronzed.....50-10&5%
Clover Wrought Steel.....70&10%
Clover Folding 70%

BROILERS.

Wire.....70%
No. Cwron, Self-basting, 80doz .. $2 50

BUCKETS.

Pump, Rubber.
Wychoff.....per gro. $4 75
Cooper..... " 4 75
Champion..... " 7 50
Victor..... " 9 25
Star..... " 5 00
IXL..... " 6 75

Well.

Galv'd Qts.....	10	12	14
Per doz.....	$2.90	$3.25	$3.40

Wooden, top ear, plain, per doz. 4 00
" " swivel, " 5 10

BUCKS, SAW.

Folding.....per doz. $2 10

BURRS, RIVETING.

Copper Burrs only.....30%
Tinners' Iron Burrs only.....65&5%

BUTTS.

Cast Iron.....70&5%.
Wrought Brass (New List).....40%
Wrought Steel, Bright.
Wrought Steel, Japanned.
Nos. 731 and - .....70&10%

CALIPERS.

Double.....65&5%
Inside and Outside.....65&5%
Wing.....70%

CALKS.

Logger's Boot.
(Lufkin R. Co.'s), per M..... $3 75

Toe.
Shoenberger.....per lb 5 c
Bessemer..... " 4½c
American..... " 7 c
Swedes..... " 8½c

CANS.

Cheese Factory.
Ontario Pattern.

Gallons.....	20	30	40
Each.....	$4.25	$5.00	$6.25

Milk.
Holstein.

Nos.....	300	301	302
Gals.....	5	8	10
Per doz.....	$26.00	$27.00	$29.00

Chicago Pattern.

Nos.....	105	108	110
Per doz.....	$19.00	$21.50	$23.00

Iowa Pattern.

Nos.....	408	410
Per doz.....	$23.50	$24.50

New Elgin Pattern.

Nos	705	708	710
Per doz.....	$25.00	$27.00	$28.00

Burn Pattern

Nos.....	700	701
Gals.....	8	10
Price.....	$2.40	$2.65

CAN OPENERS.

See Openers.

CAPS, GUN.

See Ammunition.

CARPET STRETCHERS.

See Stretchers.

CARRIERS.

Hay.
Diamond, Regular.....each, $3 85
Diamond, Sling..... " 6 50
Myers' Imperial ..... " 3 85
Myers' Clover Leaf..... " 4 00

CARTRIDGES.

See Ammunition.

CASTERS.

Standard—Ball Bearing.....50&10%
Bed.....60&5%
Common Plate.
Brass Wheel.....60&10%
Iron and porcelain wheels, new list.....60&5%
Philadelphia Plate, new list.....70%
Martin's.....60%
Payson's.....75&10%

CATCHERS, GRASS.

Carroll's, No. C.....per doz. $4 25
Wildermuth's,.

Nos.....	1	2	3
Per doz.....	$5.60	$5.75	$6.25

Nos.....	4	5	6
Per doz.....	$6.75	$9.50	$10.00

CHAIN AND CHAINS.

Breast Chains.
Doubleslack.....doz. pairs, $5 75
With Covert Snaps. " 5 00
With Slide..... " 3 25
Without Slide..... " 2 85

Bright Ox Chains.
⅜-in. $7.25; ½-in. $5.45 per 100 lbs.

Cable Coil Chain.

Inch.....	5/16	⅜	7/16	½
Per 100 lbs.	$10.80	$8.00	$7.00	$6.20

Inch.....	7/16	½	⅝	¾
Per 100 lbs.	$6.00	$5.90	$5.75	$5.65

Inch.....	⅞	1	1¼
Per 100 lbs.....	$5.55	$5.55	$5.65

Cable Log Chain.
Advance 25c per 100 lb. on Cable Coil.

Cow Tie Chains.
American, 2 toggle.....50&5%
" toggle and snap...50&5%
" open and closed ring.....50&5%

Halter Chains.
American, new list.....33⅓%
German.....60%
Niagara, new list 40%
Brown's, " 40%

Picture Chains.
Light Brass, 3 ft.....per doz. $0 65
Heavy Brass, 3 ft .... " 1 00

Pump Chain
Galvanized, per 100 lbs.....$5 50

Safety Chain.
Brass.....60%

Special Steel Loading Chain.

Inch.....	½	9/16	5/16
Per 100 lbs.....	$16.00	$13.50	$12.50

Stretcher Chains.
5/16-in. $8.50; ⅜-in. $7.75 per 100 lbs.

Tie-Out Chains.
Brown's.....70&5%

Trace Chains.
Western Standard.

6½— 6-2.....	per pair	30c
6½— 8-2.....	"	34c
6½— 8-3.....	"	33c
6½—10-2.....	"	38c
7 — 8-2.....	"	38c
7 —10-2.....	"	42c
7 —10-1.....	"	48c
7 —10-0.....	"	60c

Add 2c per pair for Hooks.
Add 2c " for Twist Link.

Wagon Stay Chains.

Inch.....	½	9/16	⅝
Per 100 lbs.....	$6.50	$6.00	$5.50

CHALK, CARPENTERS'.

Blue.....per gro. 75c
Red..... " 65c
White..... " 55c
Common White School Crayon..... " 8c

CHARCOAL.

In bags..... per bag 90c

CHECKS, DOOR.

Blount.....33⅓%
Sargent's.....33⅓%

CHIMNEY TOPS.

Iwan's Volcano.....50%

CHISELS.

Box.

Inches.....	10	12	14
Round per doz....	$2.10	$2.25	$2.75
Flat " ...	2.85	3.60	4.20

Cold.
Good quality, ⅜ in. and larger.....per lb. .12c
Smaller size per doz.....

Socket, Framing and Firmer.
Clover.....75&10%

Tanged, Firmer.
With handles.....30&5%

Choppers, See *Cutters, Meat.*

CHUCKS, DRILL.

Goodell's, for Goodell's Screw Drivers.....per doz. $6 25
Yankee, for Yankee Screw Drivers..... 5 00

CHURNS.

Anti-Bent Wood.

Gal.....	5	7	10
Each.....	$3.90	$4.60	$4.85

Belle, Barrel.....65&7½%

Common Dash, Gal.	4	5	6
Per doz.....	$7.75	$8.50	$10.50

Union, Gal.....	5	7	10
Each.....	$3.65	$3.90	$4.75

CLAMPS.

Adjustable.
Martin's.....30%

Carpenters'.
Steel Bar.....25%

Hose.
Sherman's, brass, ⅝-in., per doz. 42c
Double, brass, ¾-in., " 90c

Saw Filers.
Disston's list, $30.00.....30%
Stearns', No. 0, $3.50; No. 1, $11.50; No. 3, $5.00 doz.
Wentworth's, No. 1, $6.00; No. 3 $7.50.

CLAWS, TACK.

Cast, wood hdle..... per doz. 45@60c
Forged steel, wood hdle " $0.80
Solid steel..... " 1 00
Giant..... " 50

CLEANERS.

Drain.
Iwan's Adjustable.....55%
Iwan's Stationary.....40&5%

Pot.
Wire.....per doz. $0 55

Side-Walk.
Steel.....per doz. $3 25
YLCR .....65&5%

CLEAVERS

Family.

Griffin, Inch.....	6	7	8
Per doz.....	$5.50	$5.75	$6.25

Royal.....per doz. 2 25

Butchers.
Plumbs.....25%

CLEVISES

Malleable .....5½c lb.

CLIPPERS.

Bolt.....$1.90@4.75

CLIPS.

Axle.....65&5%

Damper.
Standard.....per doz. 65c
Troy..... " 38c

Hame..... " 17

CLOTH.

Emery.
Star.....50%
B. & A.....50%

Hardware Wire—full rolls (100 ft.)
2 to 3 incl., Galv.—in full roll... 2 75
4 and 5..... " .. 3 00
6..... " .. 3 25
7 and 8..... " .. 3 75

Screen Wire.
12 mesh, painted, per 100 sq. ft.. 1 35

COCKS AND FAUCETS.

Compression Plain Bibbs...60, 10&5%
Lever Bibb Cocks.....60, 10&5%
Compression Hose Bibbs ..50—10&5%
Telegraph Faucets (new list)..50—5%
Racking Cocks (new list)...60, 10&5%
Compression Lock C'ks(new list).70%
Andrew's Brass Faucets.....70%
Angle Plug Faucets, per doz....$0 85
Milk Can Faucets, per doz..$2.60-4.20
Petroleum Faucets .....75&5%

COLLARS, STOVE PIPE.

Inches.....	5	6	7
Plain Tin..per gro.	$1.90	$2.40	$3.50
Japanned Tin "	3.00	3.00	4.25
Lacquered Brass"	3.00	5.50	4.25

COMBS, CURRY.

Nos...	000	11	15	39	89	108
Per Doz..	$.37	.60	1.90	.90	1.15	.80
Nos...	299	320	390	532	620	1400
Per Doz.	$1.05	.85	1.35	1.20	.75	1.40

COMPASSES.

Carpenters'.....60—10—10%
Pencil—Faber's.....per doz. $1.00

COPPER—See Metals.

COPPERS.

Soldering.
1 lb.....per lb 30c
1½ lb.....31c 2 lb... " 29c
3 lb and larger..... " 26c

CORD.

Picture
White Wire (new list) .....85&10%

Sash.
Monarch Braided Flax ...per lb
Silver Lake, white, 7-32 in. "
Silver Lake, white, 8-32 in. "
Keystone.....8-32 in. " 29c

CORKSCREWS.

Humason & Beckley.....33⅓%
Walker's.....33⅓%
Williamson's Regular.....40&10%
Williamson's Forged Worm.....50%

COTTERS, SPRING.

All sizes—new list.....90&30%

COUPLINGS, HOSE.

Brass.....per doz. $
Brass Plated..... " 85

COVERS, WAGON—See Tents.

CRADLES, GRAIN.

Morgan's Grapevine....per doz.$22 75

CRAYONS—See Chalk.

CROW BARS.

Inch or Wedge Point.....per lb 3½c

CUTTERS.

Glass.
Red Devil.....45%
Smith & Hemenway Co.....50%
Woodward.....40%
Meat.
Enterprise, Nos. 5, 10, 12, 22, 32 and 42.....25%
No. 202. list, $1.50 ea.....40&7½%
Pipe.
Stanwoods. No.... 1 2 3
Each.....$0.85 $1.50 $4.00
Slaw and Crout.
3-knife Crout.....per doz. $9 75
1-knife Slaw..... " 1 65
2-knife Slaw..... " 2 25
Washer..... " 7 75

DAMPERS, STOVE PIPE.

Jewel.....50&10%
American.....50%

DIES AND STOCKS.

Discount.....40%
King's, Little Giant.....33⅓%

DIGGERS.

Post Hole.
Acme.....per doz. $9 25
Atlas..... " 9 00
Eureka..... " 7 50
Hercules..... " 10 25
Iwan's Split Handle.. " 7 50
Iwan's Perfection.... " 9 00
Iwan's Hercules pattern " 10 00
Ryan's..... " 17 00
See also Augers—Post Hole.
Dividers, Wing.....65&10%

DOOR CHECKS—See Door.

DOORS, SCREEN.

⅞ in. 4-panel, painted...per doz. $7 93
1⅛ in. 4-panel, painted... " 9 50
1⅛ in. 3-panel, natural pine, fancy..... " 12 40

DOOR HANGERS—See Hangers.

DRILLS.

Bit Stock.....60&10%
Blacksmith's Twist.....60%
Breast.
Fray's No. 9.....each, $1 75
Millers Falls No. 12..... " 2 10
Hand.
Goodell's Automatic.
Nos..... 01 03 3 20
Per doz.. $7.75 $12 50 $12.50 $11.00
Goodell's Single Gear. per doz. 15 75
Millers' Falls " " " 12 75
" " Double " " 15 25
Reciprocating.
Goodell's.....per doz. 16 50
Bit Stock.
Standard List.. 60&5%@60%@10

DRIVERS, SCREW.

Standard.....65&10%
Lock Ferrule.....60%
Champion.....40&10%
Champion Pattern.....70%
Clark's Interchangeable.....30%
Edison.....60%
Reed's Lightning.....45&5%
Goodell's Spiral.....50, 10, 5&2½%
Yankee Ratchet 50%
" " Spiral.....50&10%
Smith & Hemenway Co.....40&5%

EAVES TROUGH, GALVANIZED.

Terms, 2% for cash. Factory shipments generally deliverod.

See also conductor pipe and elbows.

EGG BEATERS—See Beaters.

ELBOWS.

Adjustable Stove.
Inches..... 5 6 7
Smooth, per doz...$0.75 $0.85 $1.20
Plan'd, " 1.80 2.00 2.65
Corrugated Conductor.
Discount.....75&10%
Corrugated Stove.
Inches..... 5 6 7
Smooth, per doz..$0.85 $1.00 $1.50
Pol'd, " .. 1.40 1.65 2.25
Plan'd, " .. 2.15 2.65 3.40
Four-Piece Stove.
Inches..... 5 6 7
Smooth, per doz..$0.60 $0.65 $0.95
Planished, " .. 1.40 1 70 2.30

EMERY CLOTH—See Cloth.

EMERY TURKISH.

Size .....5-lb. pkgs, ½ kegs, kegs.
No 60 to 150, per lb.. 6c 4c 4c
Flour..... " ... 5c 3c 3c

ENAMEL, IRON.

Nubian, ½-pt. cans.....per doz. 1 65
Peerless..... 1 25

EXTRACTORS, PIG.

See Forceps, Pig.

EYES.

Bright Wire Screw—See Goods, B. W.
Drifting Pick.....60, 10&5%
Hooks and—
Brass.....50&10%
Iron.....70%

FASTENERS, STORM SASH.

Schroeder's.....per doz. $0.85
Sensible..... " 1 15

FAUCETS—See Cocks.

FILES AND RASPS.

Delta.....70%
Kearney & Foot.....75&10%

FLUE STOPPERS—See Stoppers.

FORCEPS, PIG.

Superior.....per doz. $4 75
Whisson's Imp..... " 5 25

FORKS.

These goods are sold net this year.
Barley.
Steel New List.....65&10%
Wood, 4-tines, per doz.....$5 00
Coal, Coke, Cottonseed.....30%
Hay.
2-tine.....60%
3 " .....60&5%
4 " .....60&10%
Digging.....65&5%
Scoop.....30%
Header.
3-tine.....60&5%
4 " .....60&5%
Manure.
4-tine 60%
Ore.....40%
Spading.

FRAMES.

Hack Saw.
Union.....per doz. $5 75
Jenning's adj..... " 7 50
Cast..... " 2 50

FREEZERS, ICE CREAM.

Arctic.
Qts..... 1 2 3 4 6
Each...$1.10 1.30 1.50 1.80 2.30
Qts..... 8 10 12 15
Each.....$2.95 3.80 4.50 5.20
White Mountain.
20 qt., New Platform....each, $19 10
25 qt., " " " 22 60
25 qt., Sampson Power, " 43 50
40 qt., " " " 58 25
Ideal..... 3 25

GAUGES.

Butt and Rabbet.
Cream Pail.
Fairmont.....per doz. $3 75
Marking, Mortise, etc.....
.....50&10%
Saw.
Wire.
Disston's.....25%

GIMLETS.

Discount.....35@40%

GLASS, WINDOW.

Single..... 90&20%
Double.....90&25%

GLASSES, LEVEL.

GLUE.

Bulk.
B Amber.....per lb. 12 c
A White..... " 15 c
H. S. Amber..... " 16½c
Liquid.
Army & Navy.....40%
Le Page's—
List "A".....37½%
List "B".....33⅓%
List "C".....25%

GOODS.

Bright Wire.....90%

GREASE, AXLE.

Wood Boxes.
Diamond.....per gro. $5 50
Frazer's..... 9 50
Hub Lightning..... 5 25
Paragon..... 6 75
Wood Pails.
Frazer's, 15 lb. 80c; 25 lb. $1.30 each.
Hub Lightning, 15 lb. 55c; 25 lb. 70c each.
Tin Cans.
Chamellene Graphite.
1 lb. per gross.....$9 50
3 lb. per gross.....25 00
5 lb. per gross.....37 00

GRIDDLES.

Soapstone.....33⅓%

GRINDSTONES.

Family.
Inches..... 7 8 9
Per doz.....$8.25 9.00 10.50
Loose.
Per ton.....$20 00@$21 00
Mounted.
Ball Bearing..... 1 2 3
Each.....$3.15 3.00 2.85
Common Bearing 1 2 3
Each.....$3.00 2.80 2.65

GUN WADS
(See Ammunition.)

HAFTS, AWL.

Brad.
Common.....per doz. $0 19
Peg.
Common..... " 22
Patent, plain top..... " 47
Patent, leather top... " 52
Sewing.
Common..... " 22
Patent..... " 52

HALTERS.

Jute Rope.....per doz. $1 10
Sisal Rope..... " 1 85
Web..... " 2 00
Leather, rope tie..... " 8 50
Leather, leather tie..... " 11 50

HAMMERS, HANDLED.

Blacksmiths' Hand.
Plumbs.....60&5%
Engineers'.
Plumbs.....60&5%
Farriers'.
Plumbs.....40&10%
Machinists'.
Plumbs.....60&5%
Nail.
Plumbs.....40&7½%
Quaker City.....per doz. $3 50
Cast..... " 1 15
Maydole's.....30&5%
Riveting.
Plumbs.....40&12½%
Shoe.
Cast.....per doz. $0 75
Tack.
All Iron.....per doz. $0 35
Pol'd Iron, Hickory hdl. " 50
Mall. Iron, Inlaid..... " 1 55
Magnetic..... 1 2 3
Per doz.....$0.70 .80 1.00
Magazine.. .....per doz. 4 75

HAMMERS, HEAVY.

Heavy Hammers and Sledges.
Under 5 lbs .....80&5%
5 lbs. and over.....80&10%
Masons'.
Single and Double Face.....80&5%

HANDLES.

Auger.
Common Assorted....per doz. $0 38
Peck's Adjustable.... " 2 10
Ives' Adjustable.....per set, 1 35
Axe.....60%
Chisel.
Hickory, Tanged Firmer, Assorted, 33c; Large, 38c per doz.
Hickory, Socket Firmer, Assorted, 27c; Large, 30c per doz.
Applewood, Tanged, Firmer, Assorted, 29c; Large, 38c per doz.
Applewood, Socket, Firmer, Assorted .....per doz $0 24
Coal Pick.....50&10%
Drift ng Pick.....50&10%
File, assorted, 13c; Large, 16c per doz.
Hammer.
Adze Eye.....per doz. $0 40
Blacksmiths'..... " 40c@70c
Machinists'..... " 45c@70c
Hatchet..... " 40
Hay and Manure Fork.....30%
Hoe and Rake.....30%
Plain.....per doz. $0 75
Varnished..... " 80
Screw Driver.
Assorted..... " 37
Large..... " 48
Shovel and Spade.....33⅓%

HANGERS.

Barn Door.
Nansen.....60&10%
Matchless.....70&10%
Storm King.....60%
World's Best.....50%
Wagner's Adjustable.....70&10%
Warehouse.....60%
Conductor P.
Griffin.....70&10%
Iwan's Perfection.....50%
Eave Trough.
Baker's.....per gro. $2 35
Imperial.....20%
Wire.....33⅓%
Parlor Door.
Acme.....per set, $3 75
Ives' Improved..... " 2 50
Lane's Standard..... " 3 50
Lane's New Model.... " 3 10
Le Roy Noiseless..... " 4 00
Richards'.....40-10&5%

HASPS.

Hinge, Wrought.....40%
With Staples—See Staples.

HATCHETS.

Crown.....50-10&5%
Cast Claw.....per doz. $1 20@1 45
Cast Shingling.... " $0 95@1 20
Germantown.....40%
Plumbs.....33⅓&5%

HAY KNIVES.

See Knives.

HAY RACK BRACKETS.

Wenzleman's No. 1.....per doz. $9 00
Wenzleman's No. 2..... " 9 00

HINGES.

Blind.
Clark's Gravity ... per doz. sets, 95c
Parker's.....65%
Shepherd's Noiseless, for Wood Casing.....per doz $1 05
Gate.
Clark's..... 1 2 3
Hgs & Ltch. . doz. $2.50 2.90 4.00
Hinges only... " 1.90 2.20
Latches only . " .70 .75
Knuckle.....per doz prs. $6 60
Leed's..... " sets 6 75
Superior..... " prs. 9 50
Spring.
American.....20%
Chicago.....25&5%
Columbia Dbl. Acting....40&10&5%
Gem.....25%
Ideal Detachable.....per gro. $11
Matchless.....30%
New Idea.....per gro. $8 00
Oxford.....20%
Wrought Iron
New Lists .....
McKinney
Light Strap Hinges.....60%
Heavy Strap Hinges.....65%
Light T Hinges.....55%
Heavy T Hinges.....45%
Extra Heavy T Hinges.....60%
Screw Hook and Strap.
6 to 12 in.....per 100 lbs. $3 75
14 to 20 in..... " " 3 65
22 to 36 in..... " " 3 40
Screw Hook and Eye.
⅜ in.....per 100 lbs. $6 75
½ in..... " " 7 75
⅝ in..... " " 9 75

HOES

Garden .....70&10%
Grub.
Extra.....70%
Hazel.....per doz. $5 00
Ladies' and Boys'.....75%
Mortar.....75&10%
Planter's Eye.....62½%
Weed.....75&15%

HOLLOW WARE—See Ware.

HOOKS.

And Eyes.
Brass.....50&10%
Iron.....65&10%
Awning.....per gro. $1 00
Belt.
Brown's.....70&5%
Jones'.....65&5%
Bench.
See Stops, Bench.

Box.
Inch..... 6 8 10 12
Per doz.....$1.35 1.65 1.75 2.30
Humason & Beckley's..per doz. $2 50
(See Goods, Bright Wire.)
Bush.
Common Axe Handle. per doz. $7 00
Chain.
Inch..... 1/4 & 5/16 3/8 7/16 1/2
Per 100...$7.60-8.10 9.75 11.50 12.60
Clothes Lines.
Japanned .....per doz 22c@24c
Galvanized..... " 40c
Coat and Hat
Cast Iron .... per gro. 72c@$1 50
Gem Wire.....70%
Conductor.
Malleable.....25%
Wrought.....20%
Corn.
Common, unpolished, per doz. $1 50
Little Giant..... " 3 25
Gate.
See Goods, Bright Wire.
Grass.
Common. Nos..... 2 3 1
Per doz.....$1.50 1.60 1.70
German.....per doz. 1 75
Little Giant..... " 2 75
Hammock.
With plate.....per doz. 50
With screw..... " 45
Lambrequin, or Drapery, per gro. .21c
Picture.....50%@50&10%
Potato and Manure.....70&12½%
Screw.
Brass.....80&5%
(See Goods, Bright Wire.)
Seat Spring.....per lb. 5½c

HOOPS, TUB.

Elastic ... per case of 2 doz.... $1 50

HOSE, GARDEN.

		Coupled, per ft.
Heron, 3 ply-¾" guar. press	55 lbs.	7½c
Crane.. " " "	75 "	8½c
Falcon " " "	95 "	9½c
Eagle " " "	120 "	10½c
Condor " " "	150 "	11½c
High Test " " "	200 "	12½c

COTTON COV. RUBBER HOSE.

High Grade-¾"-guar. press.	400 lbs.	11½
Special " " "	300 "	9½c
Leader " " "	100 "	7½c

HUSKERS.

Boss.
Nos..... B BB E 200
Per doz.....$2.00 2.00 1.75 .80
Nos..... L PP P K
Per gro.....$5.40 6.00 6.00 10.50
Nos..... 2000 3000 O
Per gro.....$3.50 9.00 24.50
Nos..... 60 50 64 68
Per doz.....$2.15 2.15 .85 1.45
Brinkerhoff's.
Per gro.....$14 40
Clark's.
No..... 1 63 200 400
Per doz.....$0.40 .75 .75 1.75
Nos..... 200s 40s 3s 4s
Per doz..... $0.85 .50 1.25 1.25
Nos..... A AB F
Per doz.....$3.00 $4.25 $2.50

IRON.

See Metals.—First column.

IRONS.

Curling.
X.....per doz. $0 40
Y..... " 50
Z..... " 58
Jewel..... " 85
Imperial..... " 1 00
Pinking..... " 70
Plane.
Wood Bench.....20&5%
Sad.
Charcoal.....per doz.$11 00
Common, polished, per 100 lb. 4 50
Common, nickel plated, 5 25
Chinese Polishing.....per doz. 7 40
Laundry, No. 1..... " 5 75
Laundry, No. 2..... " 6 25
Mrs. Pott's,
No. 50 J, Enterprise, per set 93
No. 55 J, " " " 90
No. 50 T, " " 1 00
No. 55 T, " " 96
No. 50, Bless & Drake " 93
No. 55, " " " 99
Tailors' Sad.....per lb. 5½
Tailors' Geese..... " 5½
Tuyere.
Single Duck Nest.....per doz $5 25
Double Duck Nest .. " 6 25
Sutton.....each.... 2 60

JACKS.

Locomotive.....70%
Wagon.
Oliver,
Nos..... 0 00
Each.....$0.60 $0.80
Standard.
Nos..... 1 2
Each.....$0.60 1.00
Wilcox.
Nos..... 1 2 3
Each..... $0.85 1.20 2.90

KETTLES.

Brass.....15%
Cauldron.....40&5%
Copper..... per lb., 27c
Maslin.....65%
Sugar.....50%

KNIVES.

Beet Topping.
Clyde, 9-in. Scimiter Blade, doz.$3 85
California..... 3 40
Cooper's Hoop.....15%
Corn.
Clipper.....per doz. $1 75
Disston's..... " 2 75
Earle's..... " 3 00
Woodford..... " 2 25
Drawing.
Standard.....70%
Adjustable.....15%
Barton's Carpenters' 10%
Folding Handle.....25&5%
Hay.
American, Sickle Edge...doz. $10 50
Canton, Sickle Edge..... " 8 25
Heath's..... " 8 00
Iwan's, Sickle Edge..... " 9 50
Iwan's, Impv'd Serrated . " 10 00
Lightn'g, Holt's Genuine. " 6 50
Lightning Pattern..... " 6 00
Wadsworth's Sp'r Point.. " 8 50
Hedge.
Challenge.....per doz. $6 00
Disston's..... " 3 75
Mincing.
Common, Single..... " 40
Common, Double..... " 50
Streeter, 4-Blade..... " 1 30
Streeter, 6-Blade..... " 2 00
Putty.
Common.....per doz. $0 60@1 00
Lander'r..... " 1 40@1 75
Scraping.
Beech Handle..... 75@1 00
Lander's..... 5 25@6 00

KNOBS.

Door.
Mineral.....per doz. $0 80
Porcelain..... " 90
Jet..... " 90

LADDERS.

Common Long.
Per ft.....9c@14c
Extension.
Per ft.....14c
Step.
Common, per ft.....7½c
Common, with Shelf, add 10c.
Keystone.....15c
Triumph, per ft.....20c

LANTERNS.

Bull's Eye Police.
3 -in. Flash Light....per doz. $6 00
2¼-in. Regular..... " 4 90
3 -in. Regular..... " 5 50
Tubular.
Buhl . . . . . .net prices.

LEADERS, CATTLE.

Nos..... 1 2 3
Per doz..... $0 55 .70 2.75

LEATHER, LACE.

Cut.....33⅓%
Sides.
Ex. Quality ..... per sq. ft., 27

LEATHERS, PUMP.

Valve and Plunger.....10%

LIFTERS.

Stove Cover.
Coppered.....per gro. 1 75@3 65
Ideal..... " 5 50
Alaska, Coppered " 4 00
Alaska, Nickeled. " 5 00
Transom.
Payson's.....80%

LINES.

Chalk.
Twisted in 20-ft. hanks.
Nos.... 4 6 7 8 9
Gross...$1.50 2 00 2 25 2 50 3 00
Twisted in 50-ft. balls.
Nos..... 1 2 3 4
Per doz.....25c 30c 35c 41c
Braided in 20-ft. hanks.
Nos..... 0 1 2 3
Per doz.....22c 25c 31c 35c
Mansons', in 100-ft. hanks...doz. 80c
Clothes.
60-ft. Jute.....per doz. $0 95
72-ft. Jute..... " 1 15
60-ft. Sisal..... " 1 40
72-ft. Sisal..... " 2 15
50-ft. Cotton..... " 1 25
50-ft. Braided Cotton. " 25

LINING, STOVE.

In Bricks .....per crate, 42c

MACHINES.

Boring.		Without Augers	With Augers
Angular.....	per doz.	3 00	4 40
Upright.....	"	2 60	4 00
Leather Riveting.			
Chicago, Pomeroy....	per doz.	$9 00	
Excelsior.....	"	2 00	
Handy.....	"	2 00	
Little Giant.....	"	3 00	
Pony, Pomeroy.....	"	7 20	
Washing.			
Winner.....per doz.		54 00	
Keystone.....	"	54 00	
U. S. Steel.....	"	60 00	
Advance, f.o.b.Chicago	"	24 50	

MAIL BOXES.

See Boxes.

MALLETS.

Carpenters'.
Fibre Head, Small....per doz. $5 00
" " Medium. " 5 75
" " Large... " 7 00
Round Hickory..... " 2 25
" Lignumvitæ... " 4 00
Square Hickory..... " 2 25
" Lignumvitæ... " 4 50
Tinners'.
Applewood..... " 1 70
Hickory..... " 1.00@1 50
Hickory Sheet Iron... " 1 50

MATS

Door
National Rigid.....50, 10&5%
Acme Steel Flexible.....33⅓%
Stove.
No. 2.....per gro. $3 25
No. 1..... " 3 50
No. 1 Asbestos Toasters, or wire-covered Stove Mats, with handle.....per doz. 1 10
No. 2 Asbestos Toasters, with ring.....per doz. 60

MATTOCKS.

Plumbs.....65&10%
Extra.....60%

MAULS.

Iron, lbs..... 10 13 16 18
Per doz.... $4.00 4.50 5.25 5.60
Wood face, lbs..... 10 12 14
Per doz..... $5.00 5.50 6.00
Wood Choppers'.
Lake Super'r & Oregon Pat. 75&10%

MEASURES.

	½ pk.	1 pk.	bu.
Galvanized, per doz.	$2.25	3.00	3.85
Japanned.. "	1.75	2.45	3.15

MICA.

First Quality.....20%
Second Quality.....25%

MILLS, COFFEE.

Enterprise.....25%
Parker.....40-12½&2½%
Arcade.....40-12½&2½%

MITRE BOXES.

See Boxes.

MOPS.

Erie.....per doz. $3 15
Handled Cotton.
Pounds..... ¾ 1 1½ 2
Per dozen....$2.00 2.35 2.65 3.25

MOWERS, LAWN.

Gladiator—B. B.
Inches..... 16 18 20
Each..... 6.50 7.25 8.00
King Universal—B. B.
Each..... 5.25 5.75 6.00
Inches..... 14 16 18
Big Giant..... 3.50 3.90 4.25
Little Giant..... 2.50 2.65 2.75
Philadelphia.
All Styles, except A & E, 60, 10&10%
Style A.....50&10%
Style E, High Wheel....60, 10&10%
Drexels.....40%
All Day .....Net Price

NAILS.

Cut Steel .....rates, $2 50
Cut Iron..... 2 60
Wire.
Small Lots..... $2 40
Carload Lots..... 2 35
Cement Coated..... 2 30
Horse Shoe.
Ausable.....55&5%
Capewell.....15%
Perfect.....55&5%
Putnam.....20&5%
Star.....35&5%
Clover Leaf .....per lb., net, 10½c
Picture.
Brass Heads.....25%
Brads.....85%
Furniture.....15%

NAIL PULLERS.

See Pullers.

NAIL SETS.

See Sets.

NETTING, POULTRY.

Galvanized beforeweaving .80,10&2½%
Galvanized after weaving.....80&7½%
Cut Pieces.....65&5%

NIPPERS.

End Cutting.
Stubb's Pattern. Inches 5½ 6
Per dozen..... $4.00 4.25
End and Diagonal Cutting.
Swedish Side.....75%
Utica Drop Forge & Tool Co....60%
Hoof.
Heller's.....40&10%
V. & B.....55&5%

NOZZLES.

Hose.
Genuine Gem.....per doz. $3 90
Magic..... " 3 60
Mystic..... " 3 00

NUTS, HOT PRESSED.

Square Blank.
In ½ 9/16 5/8 7/16 ¾ 7/8 1
lb 9½c 8c 6½c 5½c 5½c 5c 4½c
Square Tapped.
In. ½ 9/16 5/8 7/16 ¾ 7/8 1
lb. 12½c 10½c 8c 7½c 6½c 6½c 6c
For 5-lb. boxes add ½c per lb. to above prices.

OILERS.

Chase Pattern.
Brass and Copper.....60%
Zinc.....60%
Engineers'.
Cannon.....55%
Tin .....per doz. $2 00@$2 25
Machine.
Common.....per doz. $0 58
Copper Plated Steel... " 1 00
Malleable Iron.....60, 10&5%
Japanned.....65@75c

OPENERS.

Box.
Inches..... 10 12 14
Flat.....per doz. $2.85 3.60 4.15
Round.... " 2.10 2.25 2.75
Can.
Delmonico .....per doz $1 30
Never Slip..... " 65
Crate.
V. & B..... " 5 75

OUTFITS, COBBLING.

Combination.....per doz. 11 00
Economy..... " 4 65
Family..... " 9 75

PADLOCKS.

Standard Wrought.....75&5%
Champion.....50%
Eureka.....40, 10&5%
Yale.....60&5%

PAILS.

Cream.
14-qt , without gauge, per doz. $2 50
20-qt., " " " 3 00
20-qt., with gauge.... " 3 50
Sap.
10-qt., Galvanized, per 100....$13 00
12-qt., " " 14 50
14-qt., " " 16 25
16-qt., " " 17 75
10-qt.,IC Tin..... " 10 25
12-qt., " .... " 11 75
14-qt., " .... " 13 00
10-qt.,IX Tin.... " 12 75
12-qt., " .... " 16 00
14-qt., " .... " 17 00
Stock.
Galv'd, qts. 14 16 18 20
Per doz..... $3.75 4.00 4.75 5.25
Water.
Galvanized... qts. 10 12 14
Per doz..... $1.95 2.20 2.45
Wood.
Cable, 2-Hoop.....per doz. $1 70
Cable, 3-Hoop..... " 1 90
Cedar, 3-Hoop..... " 2 85
Standard, 2-Hoop.... " 1 60
Standard, 3-Hoop.... " 1 80

PANS

Dripping.....60&5%
Fry
Common .....75&10%
Acme 70%
Roasting.
Paxton,
Nos..... 1 2 3 4
Per doz.... $4.75 5.75 6.50 7.50
Neverburn ... 4.00 4.50 5.50 6.00
Savory, No. 200.....per doz. $8.00

PAPER.

Building.
Plain.....per 100 lbs. $1 25
Tarred..... " 1 35
Tarred Felt..... " 1 65
No. 20, Red Rosin....per roll, 40
No. 30, Red Rosin.... " 55
Sand and Emery.
Star ..... low list, 50%
B. & A.....50%
Wrapping.
Drab Fiber.....per lb. $0 00
Rag..... " 0 00

PARERS.

Apple.
Bay State.....per doz. $13 00
Turntable..... " 0 00
White Mountain..... " 5 00
Reading..... " 7 00
Potato.
Goodsell's Saratoga, 10½ in., doz. 6 50
Goodsell's Saratoga, 5 in., doz. 5 50

PICKS.

Adze Eye Ore.....70%
Drifting and Poll Picks.....70%
Plumbs, Railroad.....70%
Surface.....70%

PINCERS.

Carpenters', cast steel,
Inches..... 6 8 10 12
Per doz..... $2.00 2.60 2.95 3.75
Blacksmiths'.....45%
Heller's.....40%

PINS.

Clothes.
Common.....per box of 5 gro $0 52
Hoyt's..... " " 31
U. S..... " " 70
Picket.
Fluted, 15-in.....per doz. $0 70
Fluted, 21-in..... " 1 60
Spiral..... " 1 90

PIPE.

Conductor.
Gal. Steel Charcoal
L. C. L. to Dealers:—
Eastern .....70&10%...50&10&2½%
Pittsburgh..75&10&5%.....60%
Central.....75&10%.....60%
Northwestern..75&7½%.....60%
Western .....70&12½%.....50&12½%
Tennessee ....70&10%.....50&12½%
Southern.....70%.....50&12½%
Southwestern ....70%.....50&5%
Terms 60 days; 2% Cash 10 days.
Factory shipments generally delivered.

Lead.
Full coils .....per lb. 7½c
Cut coils..... " 7½c
Stove
Acme—Inches.... 5 6 7
Smooth, per jt... 8½c 9½c 10½c
Planished, " 32 c 33 c 43 c
Peerless—Smooth, 7½c 8 c 9½c
Polished.....14½c 15½c 18 c
Planished.....28 c 31 c 35½c
Made-up—Inches.. 5 6 7
Smooth..... 7½c 8 c 9½c
7 to 6 in. Smooth Tapers, pr jt...13c
6 in. Smooth T's..... " 27c
7 to 6 in. Planished Tapers.....45c
Yale Patent Lock Pipe—Stove.

Blue Steel:	5"	6"	7"	7" to 6"
	Cents			
Battle Axe Blue...	7	7¾	9½	10½
Can't Slip " ..	7½	8½	10	11
Peerless " ..	7½	8½	10	11
Duplex " ..	10	11	13	14
Yale, Rus. Fin....	15	16	17	18
Duplex Planished.	29	31	37	38
Galvano, Gal.....	15	16	17	18

If wanted made up, add per joint or grooved, 1c; riveted, 1½c. Grating made-up pipe extra.
Wrought Iron Gas Pipe.
¼@½-in., black.....discount, 60%
¾@1-in., black..... " 60,10&5%
1¼-in. to 6-in., black... " 70%
7-in. to 12-in., black... " 62½%
¼@½-in., galvanized.... " 42%
¾@1-in., galvanized.... " 50%
1¼-in. to 6-in., galvan'd " 57½%
7-in. to 12-in., galvan'd " 45%

PLANES.

Sargent Iron Bench.....60%
Stanley Iron Bench .....25&5%

PLATES, TIN.

See Metals in Column 1.

PLIERS.

Button's—Ins.. 4½ 6 8 10
Per doz..... $2.75 3.35 4.15 5.15
Button's Pattern.
Inches..... 4½ 6 8 10
Per doz..... $2.25 2.75 3.25 4.25
Cutting.
Bernard's.....30%
Lodi.....50%
End and Diagonal Cutting
Swedish Side.....70%
Utica Drop Forge & Tool Co....50%
Fencing.
Farmers' Choice.....per doz. $8 00
Russell's..... " 8 25
Flat and Round Nose.
Bernard's.....30%
German.....65%
Lodi.....50%
Paragon.....50%
Gas.—Inches.. 7 8 10 12
Per doz..... $3.00 3.50 4.50 5.50

Tinners'.
Hollow.....40%
Solid.....each, 5½c

PLUMBS AND LEVELS

Common .....60&10&10%
Cook's.....40%
Davis' Iron 25%
Davis' Inclinometer.....15%

POINTS

Drive Well Points.....75&5%

POKERS, STOVE.

Wr't Steel, str't or bent, per doz. $0 55
Wr't Steel, wood hand'ls " 80
Nickel Plated, coil hand'ls " 65

POKES, ANIMAL.

Cracker Jack, wr't steel, per doz. $4 50

POLISH.

Metal.
Pride of the Bar..... $1 60
Putz Cream,
Pts..... 1-6 ¼ ½
Per doz. $0.80 1.10 1.65
Pts..... 1 2 3 8
Per doz..$2.75 4.50 7.50 12.50
White Silk, half pints, per doz, $2 00
White Silk, 6-oz. cans, per doz. 1 00
Wondershine,
Pts..... 1-6 ½ 1 2
Per doz. $0.70 1.35 2.25 3.00
George William Hoffman
U. S. Metal Polish Paste, 3-oz boxes, per doz , 50c; per gro 4 55
½-lb. boxes.....per doz 1 20
1-lb. boxes ..... " 2 25
U. S. Liquid, 8-oz cans, per doz , $1.25.....per gro 12 00
Barkeepers' Friend Metal Polish .....per doz 1 75
.....per gro 18 00
Shoe.
M. C. D.....per doz.....36c@50c
F. C. O..... " 40c
T M..... " .55c@$1 75
Imperial.....per gro 5 00
Stove.
Black Eagle, 1-lb. cans, pr gr, $15 00
Black Silk—
5-lb. pail..... $0 70
Paste, 5-oz. cans....per doz. 75
Paste, ½-lb. cans .... " 1 05
Liquid, ½-pt. cans... " 1 05
Liquid, 6-oz. cans... " 75
Steel Range Gloss.... " 1 25
Blackene, 1-lb. cans...per gro. 13 00
Blackene, 1-lb. cans...per gro. 13 00
Black Jack, ½-lb. cans. " 9 25
Dixon's Card. of Iron. " 5 75
Nickel Plate..... " 4 50

POPPERS, CORN.

Round or Square, 1-qt. per doz. $1 05
Square, 1½-qt..... " 1 15
Square, 2-qt..... " 1 35
4-qt..... " 3 75

POTS, FIRE.

Bernz.....each, $3 85
Clayton & Lambert's,each,$4 75@6 25
Gate City.....each, 6 25
Gem.....each,$6 75@8 50

POWDER.

See Ammunition.

PRESSES, FRUIT AND JELLY.

Enterprise Manufacturing Co.....25%
Henis.....per doz. $1 85

PRIMERS

See Ammunition.

PRUNERS.

Disston's Pole.....per doz. $6 50
Henry's Improved..... " 75&10%
Water's Improved..... " 80%

PULLERS.

Cork.
Daisy..... each, $3 10
Phœnix..... " 1 40
Quick and Easy..... " 2 70
Nail.
Giant.....per doz. 10 50
Giant Pattern..... " 6 00
Jumbo..... " 9 00
Tack—Giant ..... " 40

PULLEYS.

Awning—Jap'd.....60%
Clothes Line.....50&10%
Hay Fork.
Iron Wheel, 5-in.....per doz. $1 75
Wood Wheel, 6-in.... " 1 75
Wood Wheel, 6-in., pass knot, ...per doz. 2 15
Hot House—Jap'd.....50&10%
Screw—Jap'd.....60%
Side—Jap'd.....50&10%
Sash.
Common.....per doz. $0 20
Common-Sense, 2-in.. " 20
Empire Pattern, 2-in.. " 20
Ideal..... " 20
Steel..... " 25

PUMPS.

Pitcher Spout.
Nos..... 1 2 3 4
Each..... $1.00 1.15 1.30 1.70
Force.
Blizzard.....per doz.$14 50
Cyclone, tin..... " 3 40
Cyclone, copper..... " 6 75
Daisy..... " 9 00
Little Giant.....each,... 2 25

PUNCHES.

Conductors'.
No 22.....per doz $2 25
Machine.....per lb 19
Saddlers'.
Common ... .per doz 60c@70c
Good..... " 72c@84c

PUTTY.

In Bladders.
Strictly pure.....per 100 lbs. 2 35

RAIL.

Barn Door.
Matchless, 1-in..... 3 c
Matchless, 1½-in..... 3½c
Storm King..... 4 c
Sliding Door.
Painted steel.....per ft. 4½c
Bronzed wrought iron...per ft. 8½c

RAKES.

Coal or Wood.....per doz. $5 20
Garden.
Steel.....70%
Steel, bow.....70%
Malleable iron, heavy.....60&10%
Hay.
Wood.....$1 50@$2 00
Lawn—Wood.
XXX.....per doz. $3 00
Automatic..... " 5 25
Lawn Queen..... " 2 75
Jumbo, 36 teeth..... " 5 25

RASPS—See Files.

RAZORS.

Bo-ras-ic.....50%
Red Devil.....50%
Tree Brand.....50%

REGISTERS.

List December 5, 1904.
Black and White Japanned, Reg. and Border .....70&10%
On Face .....75&10%

RINGS.

Bull.
Copper.....2½ in. 3in.
Per doz.....$1 10 $1 40
Rea's Improved Self-Piercing copper, pr doz 2 00 ....
Steel, per doz..... 85 95
Nickel plated..... 1 35 ....
and Ringers—Hog.
Blair's Rings.....per doz. $0 58
Blair's Ringers..... " 75
Brown's Rings..... 50
Brown's Ringers..... " 80
Champion Ringers.... " 1 60
Hill's Ringers..... " 70
Hill's Ring, boxes.... " 47
Major Rings..... " 60
Perfect Ringers..... " 95
Wolverine Rings..... " 1 40
Wolverine Ringers.... " 80
Fruit Jar.
White.....per lb.....30c
Key.
Split, round.....per doz. $0 17
Split, square..... " 32
Ball, round..... " 32

RIVETS.

and Burrs.
Copper Belt.....40%
Coppered Iron.....60&10&5%
Tinners'.....60&10%
Hame.....per lb. $0 10
Slotted Clinch per doz 40c@45c
Tubular
Nos 1 and 2 assorted sizes, doz, 45c

RIVET SETS

See Sets.

ROPE.

Cotton.
¼, 5-16 in. Com on reels. .per lb. 11½c
¼, 5-16 in Com. in coils.. " 12 c
¼, 5-16 Imperial in coils.. " 21 c
Sisal
1st Quality .....12 c
Hardware Grade, rates, per lb...10 c
Pure Manila.
1st quality.....per lb.15½c
Hardware Grade, rates... " 14½c

RULES.

Boxwood.....[illegible]
Ivory.....

SASH WEIGHTS.

See Weights.

SAWS.

Back.
Disston's.....[illegible]%
Jackson's.....[illegible]%
Butchers'.
Disston's.....30%
Circular.
Disston's.....50%
Hiles'.....50&10%
Compass.
Common.....per doz $1 35@1 60
Disston's .....[illegible]%
Cross-Cut
Disston's.....45%
Dehorning.
Disston's.....per doz. $5 75
Hack.
Disston's.....25%
Keystone.....30%
Hand and Rip.
Brown's.....30%
Disston's No. 7.....30%
Disston's Nos. 8, D8, 12, 76, 112, D100, and 120 (new list).....25%
Keystone.....30%
Enterprize, hand.....per doz. $5 00
Our Saw, hand..... " 4 00
Our Saw, rip..... " 4 50
Keyhole—Disstbn's.....25%
Kitchen.
Sterling 25%
One Man.....50%
Panel
Brown's 30%
Disston's No. 7.....30%
Disston's No. D100.....25%
Pruning.
Brown's 25%
Disston's 25%
Wood
Common.....per doz. $4 50
Clover Leaf..... " 6 00

SAW BUCKS—See Bucks.

SAW SETS—See Sets.

SAW TOOLS—See Tools

AW FRAMES.

Common, plain.....per doz. $1 25
Common, painted..... " 1 70

SCALES.

Counter.
Pelouze.....40&10%
Platform.
Osgood.....50%

SCOOPS.

Grain.
½-bu. "Hercules".....per doz. 13 70
1-bu. "Hercules"..... " 15 00

SCRAPERS.

Box.
Triangular.....per doz. $4 00
Cabinet.
Cast Steel . . . . per doz , 60c@75c
Road.
Cubic ft. 7 5 3
Without run's, ea. $4.00 2.75 3.50
With runners, ea.. 4.25 4.00 3.75

SCREWS.

Bench.
Iron, in..... 1 1½ 1¾
$3.50 4.00 4.75
Wood, white maple...per doz. $3 50
Hand—Wood.....10%
Hand Rail.....80&10%
Jack.....70&10&5%
Lag or Coach—all sizes, gimlet pointed.....75&5%
Saw—Centennial
Nos .. 1 2 3 4 5 6
Per doz. 18c 20c 26c 30c 23c 25c
Wood.
F. H. Bright.....87½&5%
R H Blued.....85%
F. H. Jap'd.....82½%
F. H. Brass.....85%
R. H. Brass.....80%
R. H. Nickel Plated.....75-10%

SCYTHES.

Be Ve Be, grass.....per doz. $8 50
Clipper, grass..... " 8 00
Clover Leaf Dutchman. " 8 00
Honest Dutchman..... " 8 00
Be Ve Be..... " 4 00

SHAVING SETS.

Smith & Hemenway.....60%

SETS.

Nail
Round, common.....per dos. $0 33
Square, common..... " 42
Octagon, common.... " 33
No. 5, square..... " 75
Cup point, knurled... " 75

Rivet.
Farmers'.....per doz. $1 20
Tinners'.....50&10%

Saw.
Aiken's Pattern.....per doz $3 50
Common Lever..... " 1 20
Disston's Monarch.... " 6 50
Disston's X Cut ..... " 12 00
German..... " 1 05
Morrill's Old Style.... " 5 00
Morrill's Pattern..... " 3 25
Leach's..... " 80
Nash's Hand..... " 3 15
Nash's X Cut..... " 4 20
Stillman's Lever..... " 1 30
Stillman's X Cut..... " 2 50

SHARPENERS, SKATE.

Diamond.....per doz $1 60
Smith & Hemenway 20%

SHAVES, SPOKE

Iron.....per doz $1 10@1 85
Wood ..... " 2 75@4 75
Bailey's .....50&5%
Goodell's 15%

SHEARS

Pruning
Buckeye, No. 1.....per doz $5 75
Buckeye, No. 2..... " 7 40
California Pat., 9-in.. " 3 20
California Pat., 10-in.. " 4 00
Draw Cut, No. 3..... " 13 75
Draw Cut, No. 4..... " 16 50
Henry's Pat. 0 01 14 012
Per doz.....$1.40 2.10 2.90 2.80
Star.....per doz $4 00

Sheep—No BBA.
Inches..... 6 6½ 7
Reg. Grip.....$11.25 11.50 12.00
Nar. Grip..doz.... 11.00 11.25 12.25

Tinners'—See Snips.

SHEAVES, SLIDING DOOR.

Common.
Inches..... 3 4 5
Per set..... $0.34 .42 .70

Hatfield's.
Per set..... $0.75 1.00 1.60

SHELLS—See Ammunition.

SHELLERS, CORN.

Union.....per doz. $6 75

SHIELDS.

Expansion Bolt Shields.....50&10%

SHOES.

Conductor.....60&10%

SHOE POLISH—See Polish.

SHOT—See Ammunition.

SHOVELS AND SPADES.

Coal.
No 2 Woodford.....per doz. $5 50
No. 182..... " 6 00
Ames' new list .....Discount, 12½%

Per doz.
Neverbreak, hollow bck, blk. $15 75
National.... " " " 14 75
Buckeye.... " " " 10 00
Mohawk.... " " " 9 00

Drain.
Iwan's Perfection.....50%

Railroad, etc.
Black Diamond.....per doz. $1 50
Crescent..... " 5 75
Keystone..... " 8 75
Star..... " 4 75
Vaterland..... " 9 50
Hollow Back..... " 4 75
Ames, new list .....Discount, 12½%

Snow.
Per doz.....$1.65@$9.00

Alaska Steel.
D Handle.....per doz. $3 50
Long Handle..... " 3 00

SINKS.

Cast Iron.
Painted.....50&10%
Enameled, White.....50&10%

Wrought Steel.
Painted, new list.....40-10&5%

SLEDGES—See Hammers.

SNAPS, HARNESS.

Champion.....33⅓%
German Pattern.....30&5%
Judd's Pattern.....50%

SNATHS.

Double Ring, Bush.....per doz. $6 00
Patent Loop, Bush..... " 5 75
Patent Loop, Grass..... " 5 50

SNIPS, TINNERS'.

Clover Leaf.....40&10%
National.....40&10%

SOLDER—See Metals.

SPRINGS, DOOR.

Perfect.
Nos..... 1 2 3 4
Per doz.....30c 35c 40c 54c

Reliance.
Per doz ...light, $1.25; heavy, $2 50

Star.
Per doz ...light, 90c; heavy, $1 35
Torrey's.....per doz. $1 35
Warner's No..... 11 13
Per doz..... 75c $1 35

SQUARES.

Steel and Iron.....70&10%
(Add for bluing, $2.50 per doz., net.)
Mitre.
Try.
Try and Bevel.
Try and Miter.
Fox's.....per doz. $5 75
Winterbottom's.....70%

SQUEEZERS, LEMON.

Common Wood.....per doz. $0 70
Porcelain Lined, Wood.. " 1 25
Boss, malleable iron.... " 1 20
Iron Frame, porc'n bowl " 1 90
Iron Frame, glass bowl . " 2 35
Little Giant, tin'd iron . " 4 00
Drum, japanned..... " 3 60
Drum, nickel plated ... " 4 50

STAPLES

Blind.
Barbed.....per lb . ..9¼@9¾c
Butter Tub..... " .....8 @8½c
Fence—less than carload.
Polished.....per 100 lbs. $2 30
Galvanized..... " 2 60
Netting.
Galvanized.....per 100 lbs. 4 00
Wrought.
Wrought Staples, Hasps and Staples, Hasps, Hooks and Staples, and Hooks and Staples.....80-10&10%
Extra heavy.....75&10%

STEELYARD.
Discount 25%.

STONES.

Axe.
Hindostan.....per lb 5½@7 c
More Grit..... " 9½c
Washita ..... " 17 c
Emery.....60%@60&5%
Oil—Mounted.
Arkansas Hard.....per doz.$23 00
Arkansas Soft..... " 15 50
Hindostan .....per lb 6½@6¾
Oil—Unmounted.
Arkansas Hard.....per lb $2 05
Arkansas Soft ..... " 1 10
Lily White..... " 45
Queer Creek..... " 15
Ouachita..... " 38
Washita..... " 26
Sythe.
Black Diamond.....per gro. $8 00
Crescent..... " 4 25
Gem Corundum..... " 7 50
Green Mountain..... " 4 50
La Moille ..... " 7 00
Quinnebog..... " 5 00
Red End ..... " 3 75

STOPS, BENCH.

Hotchkiss'.....per doz. $3 50
Stearns'..... " 4 75

STOPPERS, FLUE.

Common.....per doz. $0 40
Crown..... " 45
Gem, flat, painted..... " 85
Gem, cor'd, decorated... " 70
Kirch's..... " 90
Perfect..... " 70@85
Skinner's Common Sense " 80

STOVE PIPE—See Pipe.
STOVE BOARDS—See Boards
STOVE POLISH—See Polish.

STRAPS.

Scoop.....per doz prs., $1 85
Skate..... " " 60@70c

STRETCHERS.

Carpet.
Bullard's.....per doz. $3 90
Excelsior..... " 5 25
Malleable Iron..... " 70
Perfection..... " 6 30
King..... " 4 50
Wire.
N. S. Elwood's.....per doz. $6 00
O. S. Elwood's..... " 6 00
Little Giant..... " 5 75
Safety..... " 10 00
Star Lever..... " 6 25
Canton Tackle Block. " 9 50
Warner's ..... " 6 25

SWIVELS.

Malleable Iron.....per lb. $0 70
Wrought Steel.....per gro. 4 50

TACKS.

American Cut.....90&15%
American Wire.....85&20%
Bill Posters Cut.....90&20%
Blued Carpet.....90&10%
Tinned Carpet.....90&10%
Gimp.....90&10%
Upholsters' Cut.....90&20%
Upholsters' Wire.....90&10%
Double Pointed.....90%
Copper.....per lb. 32c
Canvas Nails.....75&5%
Clout Nails.....75&10%
Hungarian Nails.....80%

TAPES, MEASURING.

Asses' Skin.....40&10%
Bend Leather.....20%
Patent Leather.....30%
Lufkin's Steel.....25%
Lufkin's Metallic.....30%

TEE BEVELS—See Bevels.

THERMOMETERS.

Tin Case.....per doz. 80c@$1 25
Wood Back..... " $2.00@12 00
Glass..... " 12 00

TIES.

Bale.
Single Loop.....80&5%
All other kinds.....70%
Cow—See "Chains."

TOOLS, SAW.

Disston's Universal.....40%
Miniature.
Smith & Hemenway.....25%

TRAPS.

Fly.
Ballon.....per doz. $1 25
Harper's..... " 1 35
Game.
Newhouse.....40&10%
New Victor.....70&10%
Mole.
Reddick's.....per doz. $6 00
Mouse and Rat.
Wood Choker ..per doz. holes $0 13
Tin Choker..... " " 75
Delusion.....per doz. 1 15
Marty Rat..... " 6 25
Marty Rat Imitation. " 3 50
Marty Mouse..... " 3 00
Marty Mouse Imitation " 2 00
Hold-em, wire rat.... " 3 75

TROWELS.

Brick.
Clover Leaf.....30%
Brade's.....15&5%
Disston's.....30%
Rose's.....20%
Plasterers'.
Clover Leaf.....40%
Disston's.....25%
W. & McP.....25%

TRUCKS.

Bag.....each, $2 75
Handy..... " 1 85
Warehouse.....50&10%
No..... 1 2 3
Half Ironed..... $3.00 3.85 5.50
Full Ironed..... 3.45 4.50 6.45

TUBS, WASH

Standard, Wood Ex.
Nos..... 2 1 large
Per doz.....$5.00 6.00 7.00 9.50
Dowell.
Per doz..... 5.35 6.35 7.00 9.50
Cedar.
Per doz..... 6.10 7.10 7.90 10.80
Indurated.
Per doz..... 8.55 9.45 10.80 13.50
Galvanized.
No..... 1 2 3
Per doz.....$6.00 6.75 7.75

TWINE.

Per lb.
3-ply Cotton Wrapping 25c
4 " " " 25c
" " Extra Wrapping.....27c
4 " " " Hvy. Wrapping 25c
4 " " Wrapping on tubes....27c
3 " " " cones....25c
4 " " " " " 25c
India Hemp, ¼-lb. balls 19c
" " ½-lb. " 18c
" " ¼-lb. " .....doz. 75c
2-ply Jute, ¼-lb. " 14c
3-ply Jute, ¼-lb. " 13c
Jute Wrapping, ¼-lb. balls.....14c
Jute Wool, 1-lb. balls.....9½c
Seins.
Nos..... 9 12 15
Soft.....per lb 26½ 26 25
Med..... " 26½ 26 25
Hard..... " 27 26½ 26
Staging, ¼-lb. ball, size 21.....26½c
" " " " 24.....26c
" " " " 27.....26c
Bagging " " 23c
3-p y "B" in hanks 18c
4- " "B" " 18c
3 " "A" " 27c
3 " Silver Finish, in hanks...37c
Fodder or Lath.
130 strand.....6¾c
200 strand.....—c

VISES.

Phœnix.....30%
Phœnix Oval Slide.
Inches..... 2½ 3 3½ 4½
Each..... $1.25 1.50 1.85 2.75
Parker's Parallel.....18&20%
Parker's Victor.....15%
Parker's Combination.....75%
Solid Box.....40&5%
Adams' Mechanics'.....each 2 50
Williamson's Universal.....60%

WARE.

Stove Hollow Ware.
Plain or Unground.....50%
Ground Ware.....45%
Enameled Ware.....33⅓%
Country Hollow Ware, per 100 lbs. $3 00
White Enameled Ware.
Maslin Kettles.....60&10%
Covered Ware.
Tin'd and Turn'd.....35&10%
Enameled.....45&10%
Glue Pots,
Tinned..... .....25%
Enameled.....30%
Enameled.
Cherry Blossom and Chrysolite..50%

WASH BOARDS—See Boards.

WASHERS.

Standard O G. cast iron . . .per lb. 2½c
Wrought iron in bulk, per lb :
In. ½ ⅝ ¾ ⅞ 1 1¼ 1½ 1¾
9c 6½c 5c 4½c 4¼c 4¼c 3½c
Wrought steel in 5-lb. boxes, per lb.:
In. ½ ⅝ ¾ ⅞ 1 1¼ 1½
10c 7c 6c 5½c 5c 5c 4½c

WASHING MACHINES—
See Machines.

WEDGES.

Ax.....per doz. $0 30
Galling.....per lb. 10¾
Saw..... " 8½

WEANERS.

Calf.
Fuller's, per doz.....$2 00 to $2 50
Tyler's Safety, per doz 1 85 to 2 40
Carroll's, per doz..... 3 00 to 3 75
Standard, per doz..... 3 00
Hoosier, per doz..... 3 50 to 4 60

WEIGHTS.

Hitching.....per lb. 2½c
Sash—f.o.b. Chicago....pr ton, 26 50

WHEEL BARROWS.

Common Railroad.....per doz. $17 00
Heavy Railroad..... " 24 00
Panama Steel Tray.... " 39 00
Klondike Steel Tray.. " 28 00

WHEELS.

Corundum.....70&10&5%
Emery.....75&5%
Well. Inches.. 8 10 12 14
Per doz..... $2.40 3.25 4.00 6.00

WIRE.

Barbed. Painted. Galv'd
Carloads . . per 100 lbs. $2.65 $2.95
Less than car " 2.70 3.00
Brass.
In coils.....20%
In 1-lb. spools, new list.....50%
Broom—Tinned . . . 60&10&10&10%
Cable—Same price as Barbed Wire.
Copper.
In coils.....20&10%33⅓%
1-lb. spools, new list.....50&10%
Fence—Smooth.
Nos. 6 to 9, An'eal'd, pr 100 lbs. $2 30
Nos. 6 to 9, Galv'd.. " 2 60
Hair—New List.....50%
Market.
Bright, full bdles.....70&5%
Bright, broken bdles.....70%
Coppered, full bdles.....70%
Coppered, broken bdles.....65&10%
Tinned, full bdles.....75&5%
Tinned, broken bdles.....65&10%
Picture—In coils . . . . 80% @80&10%
In 5-lb. spools.....per lb.....26c
Plain—Small lots..... $2 10
Car lots..... 2 05
Small spools 5c per 100 higher

WRENCHES.

Acme Standard.....60%
Alligator No. 1.....85cnet
Always Ready.....50%
Coe's Standard.....40&10&5%
Agricultural.....75&5%
Ellis Adjustable.....25%
Malleable "S".....per lb. 08c
Malleable..... " 08c
Stillson Pipe.....70%

BEMIS & CALL'S WRENCHES.

Improved Adjustable S nut.....40%
Improved Adjustable S pipe 40%
Briggs' Pattern nut.....40%
Combination Bright.....40&10%
Combination Black.....40, 10 & 5%
Steel Handle nut.....50%
Merrick Pattern nut.....50%

WRINGERS.

No. 22, Guarantee....per doz, $32 50
No. 110, Guarantee.... " 32 50
No. 110, Brighton..... " 23 50
No. 110, Bicycle..... " 31 50
No. 500, Royal..... " 32 50
No 350, Universal..... " 28 00
No. 300, Novelty..... " 28 00
No. 310, Keystone..... " 28 00
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Acetylene Generators

Ideal Epworth Acetylene Co. Waterloo, Iowa and Johnstown, Penna

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Iwan Bros., Streator, Ill

Boilers—Steam

Boynton Furnace Co., Chicago, Ill
Kellogg-Mackay-Cameron Co., Chicago, Ill

Boiler Handles

Berger Bros. Co., Philadelphia, Pa

Bolts

Columbus Bolt Wks., Columbus, O
Star Expansion Bolt Co., New York, N.Y

Bolt and Screw Cases

American Bolt & Screw Case Co., Dayton, Ohio

Boxes—Hardware

Green Co., A. H., New York

Brakes—Cornice

Bertsch & Co., Cambridge City, Ind
Niagara Machine & Tool Works, Buffalo, N. Y
Robinson Mfg. Co., J. M., Cincinnati, O

Brass and Copper

Hungerford, U. T., Brass & Copper Co., New York, N. Y
Plume & Atwood Mfg. Co., Chicago, Ill

Cans

Stuber & Kuck, Peoria, Il

Carpenters' Tools

Griffin Mfg. Co., Erie, Pa
Lawson Mfg. Co., Chicago, Ill.
North Bros. Mfg. Co., Philadelphia, Pa
Pullman Mfg. Co., Rochester, N. Y

Carriage Forgings

Columbus Bolt Works, Columbus, O

Ceilings

Berger Mfg. Co., Canton, O
Burton, W. J. Co., Detroit, Mich
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Foster, Wm. & Sons, Springfield, Ill
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Keighley Met. Ceiling Co., Pittsburg, Pa
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Watson Co., James H., Bradley, Ill.
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Cement—Plumbers

Obermayer Co., S., Cincinnati, O

Cement—Roofing

Auld & Conger Co., Cleveland, O
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Chains—Jack and Safety

Hungerford, U. T. Brass & Copper Co., New York
Plume & Atwood Mfg. Co., Chicago, Ill

Chimney Tops

Iwan Bros., Streator, Ill

Clothes Dryers

Martcross Co., Chicago

Coil Springs

Pullman Mfg. Co., Rochester, N.Y

Conductor Hangers

Berger Bros. Co., Philadelphia, Pa

Conductor Pipe

Badger Steel Roofing & Corrugating Co., La Crosse, Wis
Berger Mfg. Co., Canton, O
Canton Mfg. Co., Canton, O
Clark, Quien & Morse, Peoria, Ill
Eller Mfg. Co., Canton, O
Friedley & Voshardt, Chicago, Ill
La Crosse Steel Roof. Co., La Crosse, Wis
Reeves Mfg. Co., Canal Dover, O
Watson Co., James, Bradley, Ill

Copper, Sheet, Plate and Roll

Hussey & Co., E. G., Pittsburg, Pa

Copper and Brass

Hungerford, U. T., Brass & Copper Co., New York, N. Y

Core Compound

Obermayer Co., S., Cincinnati, O

Corn Cribs

Denning Wire & Fence Co., Cedar Rapids, Ia

Cornices

Badger Steel Roofing & Corrugating Co., La Crosse, Wis
Berger Mfg. Co., Canton, O
Canton Mfg. Co., Canton, O
Eller Mfg. Co., Canton, O
Watson Co., James, Bradley, Ill

Cornice Brakes

Bertsch & Co., Cambridge City, Ind
Niagara Machine & Tool Wks., Buffalo, N. Y.
Robinson, Mfg. Co., J. M., Cincinnati, O

Cotters—Spring

Hindly Mfg. Co., Valley Falls, R. I

Couplings—Solderless

Modern Improvements Mfg. Co. Brooklyn, N. Y.

Crimping Machines

Robinson, Mfg. Co., J. M., Cincinnati, O

Cutlery

Droescher, S. R., New York, N. Y
Smith & Hemingway Co., New York, N.Y

Cut Offs—Rain Water

LaCrosse Steel Roof. Co., La Crosse, Wis.
Milwaukee Corrugating Co., Milwaukee, Wis
Sullivan-Geiger Co., The Indianapolis, Ind.

Eaves Trough

Badger Steel Roofing & Corrugating Co., La Crosse, Wis
Canton Mfg. Co., Canton, O
Cassens Mfg. Co., Edwardsville, Ill
Eller Mfg. Co., Canton, O
La Crosse Steel Roof Co., La Crosse, Wis
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Elbow Shears

Wagner, C. DeWitt, Cedar Rapids, Ia

Elbows

Diener Mfg. Co., Geo. W. Chicago, Ill
Reeves Mfg. Co., Canal Dover, O

Elbows—Conductor Pipe

Canton Mfg. Co., Canton, O
Dieckmann, Ferdinand, Cincinnati, O.
Eller Mfg. Co., Canton, O
Milwaukee Corrugating Co., Milwaukee, Wis.
Wheeling Corrugat'g Co., Wheeling, W. Va

Electrotypes

St. Louis Electrotype Fdry. Co., St. Louis, Mo

Elevators

Kimball Bros. Co., Council Bluffs, Ia.

Enameled Ware

Star Enameling & Stamping Co., Pittsburgh, Pa

Fencing—Wire

American Steel & Wire Co., Chicago, Ill
Denning Wire & Fence Co., Cedar Rapids, Ia
Pittsburgh Steel Co., Pittsburgh, Pa

Files

Carver File Wks, Philadelphia, Pa
Disston, Henry & Sons, Philadelphia, Pa

Flat Keys

Hindly Mfg. Co., Valley Falls, R. I

Forming Rolls

Bertsch & Co., Cambridge City, Ind
Niagara Machine & Tool Works, Buffalo, N. Y

Foundry Supplies

Obermayer, S. Co., Cincinnati, O
Stevens, F. B., Detroit, Mich

Furnace Cement

Connors Paint Mfg. Co., Wm., St. Louis, Mo

Furnace Rings

Walworth Run Fdy. Co., Cleveland, O

Furnaces—Hot Air

Bonnot Co., The Canton, Ohio
Boynton Furnace Co., Chicago, Ill
Detroit Heating & Lighting Co., Detroit, Mich
Green Fdy. & Furn. Wks., Des Moines, Ia
Haynes-Langenberg Mfg. Co., St. Louis, Mo
Henry & Scheible Co., Cleveland, O
Hess-Snyder Co., Massillon, Ohio
March-Brownback Stove Co., Pottstown, Pa
Meyer Furnace Co., Peoria, Ill
Miller, Wm. Range & Furnace Co., Cincinnati, Ohio
Monroe Fdy. & Furn. Co., Monroe, Mich
Mueller, L. J. Furn. Co., Milwaukee, Wis
Schwab, R. J. & Sons Co., Milwaukee, Wis
Smith, Chas. & Co., Chicago, Ill
Smith & Anthony Co., Boston, Mass
Standard Register Co., Cleveland, O.
Stove & Range Co of Pittsburgh, Pittsburgh, Pa
Twentieth Century Heating & Ventilating Co., Akron, Ohio
Youngstown Furn. & Supply Co., Youngstown, O

Furnaces—Soldering

Clayton & Lambert Mfg. Co., Detroit, Mich
Diener Mfg. Co., Geo. W., Chicago, Ill

Furnaces—Tinners

Burgess Soldering Furnace Co., Columbus, Ohio

Furnace Pipe and Fittings

Green Fdy. & Furn. Wks., Des Moines, Ia
Meyer & Bros. Co., F., Peoria, Ill
Mueller, L. J. Furn. Co., Milwaukee, Wis

Gas Stoves

Stove & Range Co. of Pittsburgh, Pittsburgh, Pa

Generators—Acetylene

Ideal Epworth Acetylene Co., Waterloo, Iowa, & Johnstown, Penn

Grain Grader

Paxton & Gallagher Co., Omaha, Neb

Hangers—Door

Safety Door Hanger Co., Ashland, O

Hangers—Garment

Pullman Mfg. Co., Rochester, N.Y

Hardware Jobbers

Clark, Quien & Morse, Peoria, Ill
Paxton & Gallagher Co., Omaha, Neb

Hardware Specialties

Paxton & Gallagher Co., Omaha, Neb
Pullman Mfg. Co., Rochester, N. Y
Schollhorn Co., Wm., New Haven, Conn
Smith & Hemenway Co., New York, N. Y

Hinges

Griffin Mfg. Co., Erie, Pa
Lawson Mfg. Co., Chicago, Ill

Hollow Ware

Avery Stamping Co., Cleveland, O
Sperry, D. R. & Co., Batavia, Ill

Hones

Droescher, S. R., New York, N. Y

Horse Nails

Standard Horse Nail Co., New Brighton, Penna

Hotels

Lenox Hotel Buffalo, N. Y.

Ice Cream Freezers

North Bros. Mfg Co., Philadelphia, Pa
Sturges & Burn Mfg. Co., Chicago, Ill

Insurance

Hardware Dealers Mutual Fire Ins. Co. of Wis., Berlin, Wis
Iowa Hdw. Mutual Ins. Assn., Mason City, Iowa

Kitchen Utensils

Avery Stamping Co. Cleveland, O

Ladders—Shelf

Calander, John St. Paul, Minn

Lanterns

Berger Mfg. Co., Canton, O

Lawn Fence

Denning Wire & Fence Co., Cedar Rapids, Ia

Lawn Mowers

Coldwell, Lawn Mower Co., Chicago, Ill., Newburg, N. Y

Levels

Baker-McMillen Co., Akron, O

Lighting

Ideal Epworth Acetylene Co. Waterloo, Iowa and Johnstown, Penna

Lighting Systems

Detroit Heating & Lighting Co., Detroit, Mich

Lightning Rod

Electra Lightning Rod Co. Cresco, Ia
Foy, Edw. A. & Co., Cincinnati, O
Maher & Son Lightning Rod Co., Preston, Ia

Mail Boxes

Blick-Williams Co., Indianapolis, Ind

Meat Choppers

Enterprise Mfg. Co. of Pa., Philadelphia, Pa

Metal—Perforated

Harrington & King Perforating Co., Chicago, Ill

Metal Shingles

Burton, W. J. Co., Detroit, Mich
Nat'l Sheet Metal Roofing Co., Jersey City, N. J

Miters

Whitacre, J. E. Mfg. Co., Rockford, Ill

Nails and Tacks—Copper

Hungerford, U. T., Brass & Copper Co., New York, N. Y
Hussey & Co., C. G., Pittsburg, Pa

Nuts

Columbus Bolt Works, Columbus, O

Paints and Paint Specialties

Connors, Wm., Paint Mfg. Co., Troy, N. Y
Dixon, Jos. Crucible Co. Jersey City, N.J

Pencils

Dixon, Jos. Crucible Co., Jersey City N.J

Perforated Metal

Harrington & King Perforating Co., Chicago, Ill

Pipe—Furnace

Meyer & Bro. Co., F. Peoria, Ill

Pipe—Stove

Reeves Mfg. Co., Canal Dover, O

Pipe—Wall

Michigan Safety Furnace Pipe Co., The Detroit, Mich

Pliers

Schollhorn Co., Wm., New Haven, Conn

Plungers

Berger Bros. Co., Philadelphia, Pa

Polish—Stove

Black Silk Stove Polish Works Sterling, Ill.

Pumps

Hess-Snyder Co., Massillon, O

Punches

Armstrong-Blum Mfg. Co., Chicago, Ill
Bertsch & Co., Cambridge City, Ind
Niagara Machine & Tool Works., Buffalo, N.Y
Robinson, Mfg. Co., J. M., Cincinnati, O
Schollhorn Co., Wm., New Haven, Conn

Putty—Stove

Connors, Wm. Paint Mfg. Co., Troy, N.Y

Radiators

Kellogg-Mackay-Cameron Co., Chicago, Ill

Rasps

Disston, Henry & Sons., Philadelphia, Pa
Carver File Wks., Philadelphia, Pa

Razors

Droescher S. R., New York, N. Y
Smith & Hemenway Co., New York, N.Y

Registers

Henry & Scheible Co., Cleveland, O
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Mueller, L. J., Furn.Co., Milwaukee, Wis
Schwab & Sons Co., Milwaukee, Wis
Standard Register Co., Cleveland, O
Walworth Run Foundry Co., Cleveland, Ohio

Revolving Cases

American Bolt & Screw Case Co., Dayton, O

Rivets

Columbus Bolt Works, Columbus, O
Hungerford, U.T., Brass & Copper Co., New York, N, Y

Roasters

Wheeling Corrugating Co., Wheeling, W. Va

Roofers' Supplies

Auld & Conger Co., Cleveland, O

Roofing—Iron and Steel

American Sheet & Tin Plate Co. Pittsburgh, Pa
Berger Mfg. Co., Canton, O
Burton, W. J. Co., Detroit, Mich
Canton Art Metal Co., Canton, O
Canton Mfg. Co., Canton, O
Eller Mfg. Co., Canton, O
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Auld & Conger Co., Cleveland, O
Connors Paint Co., The Wm., Troy, N.Y

Roof Paint

Dixon, Jos. Crucible Co., Jersey City, N.J

Rules

Lufkin Rule Co., Saginaw, Mich

Sash Balances

Pullman Mfg. Co., Rochester, N.Y

Saw Sets and Saws

Disston, Henry & Sons, Philadelphia, Pa
Smith & Hemenway Co., New York, N.Y

Screens—Perforated Metal

Harrington & King Perforating Co., Chicago, Ill

Screen Door Checks

Pullman Mfg. Co., Rochester, N. Y

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Columbus Bolt Works, Columbus, O

Screw Drivers

North Bros. Mfg. Co., Philadelphia, Pa

Seamless Tubing—Brass & Copper

Hungerford, U. T., Brass & Copper Co., New York, N. Y

Seed Cleaners

Paxton & Gallagher, Omaha, Neb

Shears

Bertsch & Co., Cambridge City, Ind
Niagara Machine & Tool Works, Buffalo, N. Y
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Shears—Elbow and Slitting

Wagner, C. DeWitt, Cedar Rapids, Ia

Sheets—Black and Galvanized

American Sheet & Tin Plate Co. Pittsburgh, Pa
Berger Mfg. Co., Canton, O
Wheeling Corrugat'g Co., Wheeling, W.Va

Sheets—Planished

American Sheet & Tin Plate Co., Pittsburgh, Pa.
Follansbee Bros., Pittsburg, Pa
Ward-Dickey Steel Co., Indiana Harbor, Ind

Sheets—Steel

American Sheet & Tin Plate Co., Pittsburgh, Pa.
American Steel & Wire Co., Chicago, Ill
Follansbee Bros. Co., Pittsburgh, Pa
Tanner & Co. Indianapolis, Ind

Shelf Boxes

Green & Co., A. H., New York, N. Y

Shovels

Avery Stamping Co., Cleveland, O

Show Cases

Michigan Show Case Co., Detroit, Mich

Siding

Foster, Wm. & Sons, Springfield, Ill
Milwaukee Corrugating Co., Milwaukee, Wis

Sifters

Stuber & Kuck. Peoria, Ill

Skylights

Badger Steel Roofing & Corrugat'ng Co., La Crosse, Wis
Berger Mfg. Co., Canton, O
Eller Mfg. Co. Canton, O

Skylight Gearing

Weiss, H. Co., New York, N.Y

Slate Roofing

Auld & Conger Co., Cleveland, O

Slating Nails

Hussey & Co., C. G., Pittsburg, Pa

Solderene

Solderene Co., The Boston, Mass

Squares, Machinists'

Disston, Henry & Sons, Philadelphia, Pa

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Avery Stamping Co., Cleveland, O

Steel

American Steel & Wire Co., Chicago, Ill

Stoves and Ranges

Champion Steel Range Co., Cleveland, O
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Miller, Wm. Range & Furnace Co., Cincinnati, Ohio
Monitor Stove & Range Co., Cincinnati, O
Smith & Anthony Co., Boston, Mass
Stove & Range Co. of Pittsburgh, Pittsburgh, Pa.
Van, John, Range Co., Cincinnati, O

Stove Cement

Dixon, Jos. Crucible Co., Jersey City, N J

Stoves—Gas

Stove & Range Co. of Pittsburgh Pittsburgh, Pa

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Stuber & Kuck, Peoria, Ill

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Cleveland Castings Pattern Co., Cleveland, O
Cope Pattern, Geo. W. Wks., Detroit, Mich
Quincy Pattern Co., Quincy, Ill
Vedder Pattern Works, Troy, N Y
Weller Pattern Co. Quincy, Ill

Stove Pipe

Hemp & Co., St. Louis, Mo

Stove Pipe Thimbles

Stuber & Kuck, Peoria, Ill

Stove Polish

Black Silk Stove Polish Works, Sterling, Ill

Stove Putty

Connors Paint Mfg. Co., Wm., St. Louis, Mo

Stove Repairs

American Stove Repair Works, St. Paul, Minn
Brauer, A. G., Supply Co., St. Louis, Mo
U. S. Stove Repair Co., Minneapolis, Minn

Stove Trimmings

Cleveland Nickel Works, Cleveland, O

Sugar Kettles

Sperry, D. R. Co., Batavia.

Supplies—Foundry

Obermayer Co., S., Cincinnati, O
Stevens, F. B., Detroit, Mich

Supplies—Stove Dealers'

Brauer, A. G., Supply Co., St. Louis, Mo

Tacks

Hungerford, U. T., Brass & Copper Wks New York, N. Y

Tapes

Lufkin Rule Co., Saginaw, Mich

Technologist

Hooper, C. H. Dubuque, Iowa

Thermometers—Oven

Evans Stamping & Plating Co., Taunton, Mass

Tin—Perforated

Harrington & King Perforating Co., Chicago, Ill

Tinners' Tools

Auld & Conger Co., Cleveland, O
Berger Bros. Co., Philadelphia, Pa
Lufkin Rule Co., Saginaw, Mich
Niagara Machine & Tool Works, Buffalo, N. Y
Smith & Hemenway Co., New York N.Y

Tinplate

American Sheet & Tin Plate Co., Pittsburg, Pa
Canton Art Metal Co., Canton, O
Eller Mfg. Co. Canton O
Follansbee Bros. Co., Pittsburgh, Pa
Merchant & Evans Co., Philadelphia, Pa
Wheeling Corrugating Co., Wheeling, W. Va

Tinware Trimmings

Berger Bros. Co., Philadelphia, Pa

Tools, Etc.

Worth Bros. Mfg. Co., Philadelphia, Pa
Rock Island Tool Co., Rock Island, Ill
Schollhorn Co., Wm., New Haven, Conn

Tools—See Carpenters' Tools

Tools—Linemen's

Smith & Hemenway, New York, N.Y

Trowels

Avery Stamping Co., Cleveland, O
Disston, H. & Sons, Inc., Philadelphia, Pa
Griffin Mfg. Co., Erie, Pa

Tubing—Brass and Copper

Hungerford, U. T., Brass & Copper Co. New York, N. Y
Plume & Atwood Mfg. Co., Chicago, Ill

Tubing—Heavy Tin

Dieckmann, Ferdinand, Cincinnati, O

Ventilators

Berger Mfg. Co., Canton, Ohio
Canton Mfg. Co., Canton, O
Eller Mfg. Co., Canton, O
Friedley & Voshardt, Chicago Ill
Globe Ventilator Co., Troy, N Y
Merchant & Evans Co., Philadelphia Pa
Pullman Mfg. Co., Rochester, N.
Uno Ventilator Co., Lynn, Mass

Vises—Automatic Swivel

Rock Island Tool Co., Rock Island, Ill

Walls—Side

Foster, Wm. & Sons Co., Springfield, Ill

Wall Register—Fittings

Meyer & Bro., Co., F. Peoria, Ill

Washers

Columbus Bolt Works., Columbus, O

Washing Machines

Brammer, H. F., Mfg. Co., Davenport, Ia
Paxton & Gallagher, Omaha, Neb.
Rotary Washing Machine Co., St. Louis, Mo
White Lily Mfg. Co., Davenport, Ia & Toledo, O

Weather Vanes—Ornamental

Foy, Edw. A. & Co., Cincinnati, O

Wire

American Steel & Wire Co., Chicago, Ill

Wire Goods

Denning Wire & Fence Co., Cedar Rapids.
Pittsburgh Steel Co., Pittsburgh, Pa

Wrenches

Bemis & Call Hardware & Tool Co., Springfield, Mass

Wants and Sales

For Paid Yearly subscribers THE AMERICAN ARTISAN will insert under this head advertisements of six lines WITHOUT CHARGE for employers wishing to secure employes, persons seeking situations, parties desiring to purchase a business, businesses for sale, partners wanted, to exchange, etc. Those who respond to these announcements will please mention that they "READ THE ADVERTISEMENT IN THE AMERICAN ARTISAN."

BUSINESS CHANCES.

PATENTS HUBERT E. PECK 623 F. Street, N. W., Washington, D. C., Consulting Expert in Patent Causes. U. S. and Foreign Patents. Send for leaflet on "Rejected Patent Applications."

For Sale—A plumbing shop with a full set of tools and stock. Will invoice about $3,000. Located in a town of 3,000 inhabitants. The town is going to put in a sewer system and water works extension. Will commence on the sewer in 30 days. Reason for selling is poor health. Address J. E. McKey, Ponca City, Oklahoma. 19-3t

For Sale—Owing to poor health we will sell our general stock of hardware of about $8,000. Have the best location in town of 4,000 in Southwest Iowa. Address M-56, care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 19-3t

For Sale—Tin and hardware store and tinshop in Louisville, Kentucky, at $2,000, or will sell tinshop and shop supplies alone. Address M-51, care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 18-3t

For Sale—The only hardware store in a town of 500 people. Located in a good territory in northwestern Iowa. Stock nearly new and room large enough to add furniture. A bargain for some one. Owner has other business. Address Lock Box 143, Lester, Iowa. 18-3t

For Sale—Well established hardware business with building in a thriving city of 5,000. Located in a fine farming community. A rare opportunity to get a clean stock of goods and a good location. Wish to retire on account of age. Address Lock Box 2, Berlin, Wisconsn. 17-3t

For Sale—Tinshop with a first-class set of tools, including one 8-foot Robinson cornice brake. Good location. Doing a fair business. Only two shops in town of 5,500. Will take cash or equivalent. Address M 34, care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 14-ufn

For Sale (Cash)—A well assorted stock of hardware and steam fittings. Will invoice about $6,000. Also two story brick store, built for hardware, with dwelling rooms on second story. This is a strictly cash business and will bear investigation. Address A. W. L. Hardware, Mt. Jackson, Virginia. 5-30

TINNERS' TOOLS.

For Sale—Tinners' and plumbers' tools, benches, ladders, cash registers, trucks, etc. Can use slitting shear in trade or will buy a good one. Address F. B. Karl, Delaware, Ohio. 19-2t

Wanted—Second-hand set of tinner's tools for cash. Address C. Perrault, Coeur d'Alene, Idaho. 18-3t

Tools Wanted — First-class 45-pound beak horn stake, one blow horn stake, one thirty-four double seaming stake. Must be in condition. Will pay reasonable price. Address M. B. Weaver, Cary, Illinois. 17-3t

HELP WANTED.

Wanted—Salesmen visiting stove trade to handle household specialty as a side line; extensively advertised in largest magazines; easy seller; immense sales; big profits; in writing state line you are selling and territory you cover. Address H. N. K., 722 Victoria Bldg., Saint Louis, Missouri. 19-3t

Wanted—At once, an all around man that understands tinning thoroughly, also some knowledge of heating and plumbing. No boozer need apply. Write and state wages expected. A steady job for the right man. Address M. Gensmer & Son, Caledonia, Minnesota. 19-2t

Wanted at Once—Good tinner for country shop in South Central Minnesota. Good tools, good shop, etc. Write full particulars, etc., and wages wanted in first letter. Address H. A. Ebert, Alden, Minnesota. 19-3t

Wanted—At once, a man that can do outside tin work and is willing to learn plumbing and stay in store part of the time. Write at once. O. N. Owen, Sidell, Illinois. 19-3t

Wanted at Once — A first-class all around tinner and sheet metal worker. Must be steady, sober and reliable. Work all year round at good wages. Address M-57, care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 19-2t

Wanted—A first-class wood patternmaker and draughtsman who can take charge of about 15 men. A splendid chance for the right man. Address M-58, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 19-3t

Wanted—Tinner, for general work in a country town. One with some knowledge of plumbing preferred. Good job and steady work the year around for satisfactory man. State experience and wages required. Address I. L. Bishop, Quincy, Michigan. 18-2t

Wanted—A first-class tinner and furnace man. One who can figure from plans and take charge of tinshop. Must be married, sober and reliable. Steady work the year around; must furnish references. Address M. Reinhardt's Sons, Lincoln, Illinois. 17-3t

Wanted—A good reliable combination tinner and plumber. No boozer. With $3,000 cash, as a partner in a good up-to-date general hardware and plumbing business in a growing town situated in northern Iowa. Address M-46, care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 17-3t

Wanted—At once, a good young tinner as second-hand man in general jobbing shop doing roofing, spouting, plumbing, heating, creamery work, etc. Single man preferred. State wages and experience. Address Lidral & Andre, Algoma, Wisconsin. 17-3t

Wanted—A plumber or plumber and tinner, at once. Steady job the year around. Write to-day. Address W. W. Wheeler & Son, Harlan, Iowa. 17-3t

SITUATIONS WANTED.

Situation Wanted—By an all around tinner and sheet metal worker. Sixteen years' experience. Address M-55, care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 18-

Position Wanted—As tin and sheet iron worker in or near Chicago. Address M-53, care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 18-2t

Situation Wanted—By tinner of eighteen years' experience. Speaks German. 38 years of age. Ordinary plumbing and pipe work. Capable of taking full charge of shop. Address M-54, care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 18-3t

Situation Wanted—By a general all around tinner and furnace man, with six years' experience. Can furnish best of references. Address August Siefert Hardware Co., Reedsburg, Wisconsin. 18-3t

Situation Wanted—By plumber. Young married man. Can do all kinds of lead work, pumps, steam, and gas fitting. Sober and reliable. Have my own tools. Want steady work in good country town. Address A. J. Stephens, 7333 St. Lawrence Ave., Chicago, Illinois. 18-3t

Situation Wanted—By a young man of three years' experience at the tinner's trade. No bad habits. Nothing but a steady job considered. Small town preferred. Address M-49, care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 17-3t

SPECIAL NOTICES.

Situation Wanted

As traveling salesman. Would prefer Southern Iowa or Northern Missouri. Extensive acquaintance with trade Address K-31, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 9-ufn

SALESMEN WANTED

For high grade modern line of steel ranges on a liberal commision basis in INDIANA, ILLINOIS, WISCONSIN, MICHIGAN, MINNESOTA, NORTH and SOUTH DAKOTA. GIVE REFERENCE. Address Tinnerman Steel Range Co., Cleveland, Ohio. 18-4t

FOR SALE

Tin and furnace shop, first-class tools as good as new, 1 horse, 2 wagons, 1 O. K. Steel Brake (new). Will invoice $1,200. Reasons for selling, going out of city. Will sell for cash only. Address Lake View Tin & Furnace Co., 1871 E. 119th St. S. E., Cleveland, Ohio. 9-ufn

SITUATION WANTED

A young man now general manager of a stove and range works, would consider associating himself in like or other position of responsibility in similar business. If attractive, a small investment might be made. Consultation can be managed and satisfactory references given, including present employers. Address K-52, care of THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 18-ufn

TO EXCHANGE

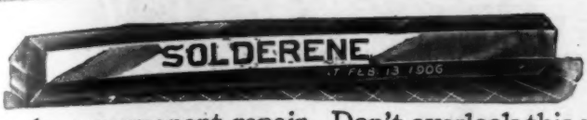
For Real Estate, Stocks, Bonds, or other Property of Value.

1. HARDWARE STOCK, $1,000.
2. HARDWARE STOCK, $2,000.
3. HARDWARE STOCK, $3,000.
4. HARDWARE STOCK, $6,000.
5. HARDWARE STOCK, $9,000.
6. HARDWARE STOCK, $12,000.

The above stocks are A No. 1 goods. Have never been placed on shelves, are new, bright and clean. They are carefully selected for a general store,—such goods as are sold daily over the counters of first-class stores,—consisting of cutlery, builders' hardware, tools, plated table ware, specialties, house furnishing goods, axes, hatchets, hammers, saws, locks, shovels, forks, screws bolts, nails, files,—practically a complete line, from regular stocks in original packages. Here is an elegant chance to get into business for a little money.

The basis on which these stocks can be had is three-fourths trade and one-fourth cash in one year's time without interest. On making a trade for an equity in any one or all of these stocks, you will be given a bill of sale, bond and contract for delivery, with invoice of goods attached. And when you wish the goods, you pay the balance and have them shipped. There will be no storage charges of any kind if the goods are ordered out inside of one year from date of contract. The contracts are assignable and should you wish to sell your interest in the stock to some other party and let them put up the money, you can do so. What have you to offer for equity in one or all? Address Exchange, care THE AMERICAN ARTISAN, 355 Dearborn Street, Chicago.

25 Cent FOR SALE
SHOP RIGHT FOR USEFUL HOUSEHOLD ARTICLE USED DAILY IN EVERY KITCHEN. RETAILS FOR 25 CENTS. MADE OF SHEET METAL WITH ORDINARY TINNERS' TOOLS
ADDRESS HENRY GIESSEL WAPAKONETA, OHIO



SOLDERENE mends leaky pans, broken handles, Porcelain ware, etc., etc. Solderene and a candle are all you need to make a permanent repair. Don't overlook this splendid opportunity to add another ready seller to your stock. Write us a postal to-day for terms to the trade. **It retails for 10 cents.**

SOLDERENE COMPANY, Dept. M, 53 State St., BOSTON, MASS.

SPECIAL NOTICES.

SALESMAN WANTED

To sell **Enameled Ware** on commission basis. State territory you are covering and line you are selling. Address PITTSBURG STAMPING CO., Pittsburg, Pa. 18-4t

SALESMAN WANTED

To carry a good line of Stove Polish as a side line. Cash commission basis. Address for full particulars, K-25, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 6-6t

Sheet Metal Worker Wanted

With experience operating power cornice press, one familiar with fireproof metal window frames. Steady employment. State experience and wages expected. Address F-10, care of THE AMERICAN ARTISAN, 355 Dearborn Street, Chicago. 17-ufn

The LENOX HOTEL
BUFFALO

Modern. High Grade. Fireproof.

OUR OWN RAPID ELECTRIC CARRIAGES, EXCLUSIVELY FOR PATRONS, operate continuously every few minutes from Hotel through Business District and to all Depots for principal trains.

EUROPEAN PLAN.

Rates $1.50 per day and upward.

GEORGE DUCHSCHERER, Proprietor

Black SILK Stove Polish

does not dry out nor rust through the cans. It preserves the iron and prevents rust in storage. Stoves on sample floor need but one good polishing with BLACK SILK STOVE POLISH.

Black Silk Stove Polish Works, Sterling, Ill.

EVERY LITTLE BIT HELPS

BE PROGRESSIVE **MAKE MORE MONEY**

If you have a Tin Shop or Sheet Iron Works you may **add a profitable branch** to your business manufacturing patented sheet iron articles for us. Sell from one to several hundred dollars each. **One man cleared $600** in the last twelve months in this side line. A contract would be an asset in your business.

Information FREE **Trial Patterns FREE**

Pin this ad to your letterhead and mail to us for full details.

SMITH & MERRILL, 10 Cary Building, MILWAUKEE, WISCONSIN

Wanted to Buy Patent for Sheet Metal Window Frames

Shop Rights to manufacture in Illinois an accepted fire proof metal window frame and sash. Enclose drawing and state price. Address "Illinois", care of THE AMERICAN ARTISAN, 355 Dearborn Street, Chicago. 17-ufn

DEAD OR SLOW MOVING STOCK?

If you have a large lump of hardware merchandise, that you want disposed of *quickly* at a *sacrifice*, address "Quick Sales," care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago, Ill., and get our proposition. It will be optional with you as to whether you are known or not known in the sale.

CUT THIS OUT

To the Publishers

The American Artisan and Hardware Record

355 Dearborn Street, CHICAGO

Please send us THE AMERICAN ARTISAN each week for three months. At the end of that time we will remit Two Dollars for one year's subscription, or 50 cents in case we decide to discontinue.

NAME .....

ADDRESS .....

TOWN .....

STATE .....

The expense and annoyance of painting will not recur every year or two if you use

Dixon's Silica-Graphite Paint

the "Proven Shield for Steel Work." Durability records in all climates; write for a few.

Joseph Dixon Crucible Co. Jersey City, N. J.

BRAUER

A. G. BRAUER SUPPLY CO.

Gives You a Square Deal Every Time.

Stove Dealers' Supplies, Castings and Stove Repairs

Prompt Shipment **Low Prices**

316-318 NO. THIRD ST., ST. LOUIS, MO.

BRAUER

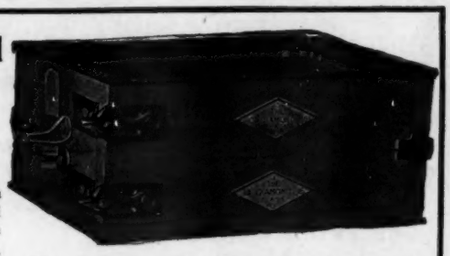
U. S. STOVE REPAIR COMPANY

REPAIRS TO FIT ALL STOVES AND FURNACES

Courteous Treatment — Prompt Shipments

13-15 South Third Street, Minneapolis, Minn.

Perfect in Every Detail
The New Diamond Snap Flask.



Made of well seasoned maple, with malleable trimmings, all mortised and dovetailed into the wood. Pins, sockets and latches put on with stove bolts, Each flask has one adjustable socket to take up the wear. The highest, strongest and cheapest flask on the market.

I sell goods of quality. "Everything for a Foundry."

FREDERIC B. STEVENS

Corner Larned and Third Streets

DETROIT, . . . MICH.

THE RIGHT KIND

of Oven Thermometer is

THE "Acme"

THE "Acme"

MADE BY **EVANS STAMPING AND PLATING CO.** TAUNTON, MASS.

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when thinking of foundry supplies to think of OBERMAYER. Quality, price, reliability—all the attributes of perfect foundry supplies are expressed by one word—OBERMAYER.

The name OBERMAYER stands for the best that can be had for the price, and every article, no matter what it is, is guaranteed to satisfy you—or your money back.

The largest foundries in this country buy all their foundry facings and supplies from OBERMAYER. There's a reason for it.

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Manufacturers' Stove Repair Co.

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Prompt Shipments. Give Us a Trial

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DESIGNS and ESTIMATES FURNISHED FOR ALL KINDS OF STOVE PATTERNS

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For Stoves and Heaters

The Cleveland Castings Pattern Co.

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First-Class in Wood and Iron

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Established 1855

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ALASKA STOVE TRIMMINGS

Shovels, Pokers, Lid Lifters, Knobs, and Malleable Stove Fittings of All Kinds.

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Our stock of
SHEET COPPER
is larger and more complete in variety of sizes and kinds than that of any manufacturer in the country, comprising an assortment of
OVER 150 SIZES
and aggregating over
300,000 POUNDS

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SHEET COPPER
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Our stock includes
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Cold rolled, levelled cornice copper
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All stock sizes of above, either TINNED OR PLAIN, on hand in New York ready for immediate shipment

STOCK SHEET SHOWING FULL ASSORTMENT ON HAND. SENT ON REQUEST.

ROOFING SLATE
All Grades Manufactured and Sold by
THE AULD & CONGER CO.
999 Prospect St., CLEVELAND, OHIO
Roofers' Supplies, Tools, Lightning Slate Dresser
WE MINE OUR OWN SLATE

THE BUILDING SEASON
offers an excellent opportunity to increase business by using the old reliable
AMERICAN SHEET & TIN PLATE CO. APOLLO BEST BLOOM TRADE MARK REGISTERED
PITTSBURGH
"Apollo Best Bloom" Galvanized Sheets
By point of merit—the standard of all galvanized sheets. By point of superior value—the favorite of all sheet metal workers.
Our Apollo Weight Card, valuable to every metal worker, will be sent free upon request to our Advertising Department.
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WALTERS'
Shingles that last
Made from Galvanized Tin and Painted Tin
Storm, Rust and Fire Proof
Do you want to increase your business? THIS IS YOUR OPPORTUNITY. Write for catalogue samples and prices.
National Sheet Metal Roofing Co.
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Sperry's Steam Kettles
Made from very thick metal, without Stay Bolts, joint packed in such a manner as to never need repacking. A little higher priced than some, but *they are safe and tight.*
D. R. SPERRY & CO. HOLLOW-WARE FOUNDERS BATAVIA, ILL.

Milbradt's Rolling Shelf Ladders
Are made to fit all kinds of high shelvings, and are guaranteed to be satisfactory in every respect.
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Send for Catalog and Prices
JOHN CALANDER
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MANUFACTURERS OF
"SUPERIOR" Improved Exhaust Tumbling Mills, Dust Arresters, Hard Iron Stars, Wrought Iron Chaplets, Plain and Tinned, Stove Rods, Furnace Rods, Chair Rods, Stove Scrapers and **all kinds of NICKEL PLATED STOVE TRIMMINGS.** Send for catalogue

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Russia finish, pat. lock
STOVE PIPE
It is made of a very high grade of uniform color Blue Polished Steel, and is coated to prevent rusting. Made in all sizes.
Packed twenty-five and fifty joints to crate. For sale by the jobbing Hardware Trade throughout the United States.
MFD. BY
HEMP & CO.
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In the event your jobber does not handle this pipe send your inquiries to us.

DEAD OR SLOW MOVING STOCK?
If you have a large lump of hardware merchandise, that you want disposed of *quickly* at a *sacrifice*, address "Quick Sales," care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago, Ill., and get our proposition. It will be optional with you as to whether you are known or not known in the sale.

American Steel & Wire Co.

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Telephone Wire

½ Mile Coil No. 8 Galv. B. B. Tel. Wire.

OUR W. & M. Telephone Wire is drawn from either steel or iron stock made especially for the purpose and rigidly inspected. The spelter is carefully laid on with uniform thickness. Lately improved processes of galvanizing are employed, ensuring ample protection and long life for the wire under extreme weather conditions.

In point of conductivity, this good wire has attained the highest possibilities of electrical science, and we submit our three brands, "E.B.B.", "B.B." and "Steel" as the best that can be produced.

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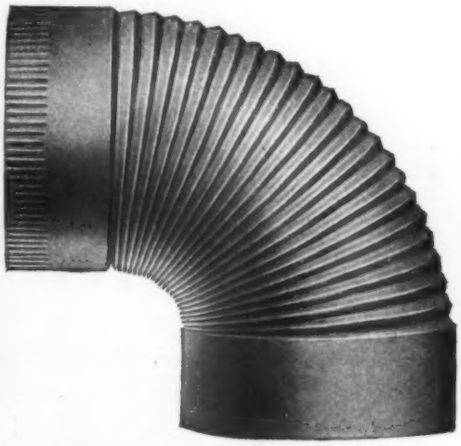
NESTED STOVE PIPE

"THE KIND YOU DON'T HAVE TO HAMMER"

Guaranteed to be the Most Practical Pipe on the Market

Requires no tools, malleting, riveting or cleating. Ready to put together when it leaves our factory. Made for dealers who want the **BEST** that money can buy. Will put more **DOLLARS** in your pocket than any other pipe ever made.

WE ARE ON TOP AND OUR GOODS HAVE PUT US THERE



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Shipped in box crates; smooth surface inside and out; will permit of a high polish. Made from one piece of metal; no seams to corrode and rust; long ends and true to size.

THE REEVES CORRUGATED ELBOW

Strongest, heaviest and most perfect corrugated elbow on the market. One piece of metal, long ends. Costs but little more than four-piece elbows, but makes you more money.

OUR STANDARD

Four-Piece and adjustable elbows are made from extra heavy stock with long ends and will not open up at the seams and fall apart like most makes of elbows which are gotten up regardless of durability and safety.

Pipe and Elbows made in all sizes and from all grades of sheets

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All Styles of Painted and Galvanized Iron and Steel Roofing and Siding. Charcoal Iron Conductor Pipe and Eaves Trough, Ridge Roll, Valleys, Dover Wire Hangers, Etc., Etc.

We Operate Our Own Charcoal Iron Knobbling Fires.

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BERGER'S

Guaranteed Rehammered

Charcoal Iron Products

There's a growing demand for high class

Trough, Pipe, Roofing, Siding, Etc.

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If you have never considered what this means to you consider it now!

Don't let your most desirable class of business get away from you when you can hold it with Berger's Charcoal Iron Products. They are second only to copper. The extra service they give more than makes up for the extra cost. Push their sale and it will bring you business, and the prestige they win you is bound to boost your trade. Don't lose ground with your trade by delaying. Keep ahead by keeping up-to-date. Write us **TODAY** for prices.

BERGER'S GUARANTEED RE-HAMMERED CHARCOAL IRON

Each piece or sheet is brass-tagged or stamped with this wording.

THE BERGER MFG. CO.

CANTON, OHIO

NEW YORK, PHILADELPHIA, BOSTON, CHICAGO, ST. LOUIS, MINNEAPOLIS, SAN FRANCISCO, ATLANTA

WE CAN MEET THE DEMAND
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METAL CEILINGS AND SIDE WALLS

Our goods are different. The designs are NEW and ORIGINAL. The PLATES are ACCURATE. The JOINTS fit PERFECTLY. For ECONOMY in the COST OF ERECTION our plates lead all others. **We are quick shippers and can give you satisfaction.** Write to-day for CATALOG "A."

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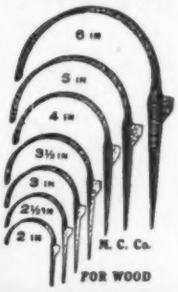
HIGH GRADE TIN PLATE

GALVANIZED
EMBOSSED CORNICES
MOST ORNAMENTAL AND LOWEST PRICED MADE

SEND FOR PRICES AND ILLUSTRATED CIRCULAR.

KUEHN'S KORREKT KUTOFFS

"NEVERBREAK" STEEL HOOKS



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Eaves Trough, Conductor Pipe, Roofing, Siding, Sheets, Etc.
ARCHITECTURAL SHEET METAL WORK.

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MILWAUKEE, WIS. KANSAS CITY, MO.

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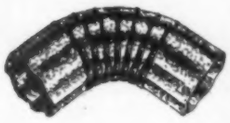
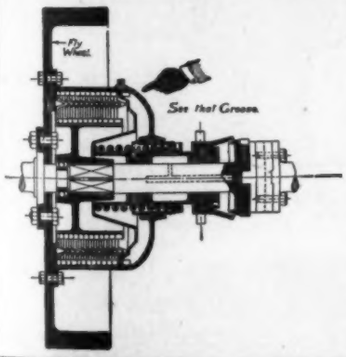


Merchant & Evans Company



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FOR SCREENS OF ALL KINDS

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Manufacturers of
"SHEET METAL PRODUCTS"
Including
Perfect Art
METAL CEILINGS
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Why not decide to-day to get the dust-proof ceiling? At least write for a copy of Catalog "D."

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YOU WILL SAVE MONEY
BY SENDING US YOUR ORDERS FOR
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We manufacture all our own goods, and guarantee them.

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STEEL ROOFING & CORRUGATING
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Uno Revolving Ventilators

A sure cure for smoky chimneys, the best for ventilation.

4" to 30"

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Have no Cross Seams. Made of Galvanized Iron in ten-foot lengths. Will not burst when full of ice.

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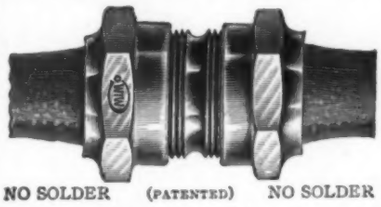

NO SOLDER (PATENTED) NO SOLDER

Do away entirely with wiping joints. A **practical** article and **BIG SELLER.**
Send for Descriptive Circular and Price-List.

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Charcoal Iron Conductor Elbows

Specify With

GUARANTEE *F. Dieckmann* Stamped in the Metal.

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Makers of the Elbows which can be erected without Refitting and Solder, save Labor and Material.

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will convince you that "Canton" Metal Ceilings have a construction that is unequaled. The alignment is straight and regular, which means a saving in time and expense in the erection. Expense of erecting is where you find your profit. Art in Canton Metal Ceilings is one of the features. Complete assortment of classified designs. Our Art Metal Book "H" for a postal. It's up to you.

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Ask Your Dealer For The

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Soldering Furnace

And You Will Make No Mistake

Always Ready—No Smoke—No Odor—No Noise—Unexcelled—Unequaled—Unrivaled—Safe—Sure—Durable.

Galvanized Iron, Brass or Copper Reservoir Equipped with Cylindrical Slotted Burner

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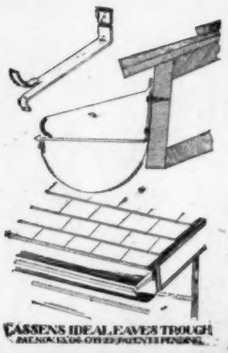

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by using **Cassens' Ideal Eaves Trough**. Of simple construction, but entirely practicable and a great improvement upon the old style gutter. Liquid only enters the trough. The IDEAL is indispensable on Schools, Churches and other Public Buildings.

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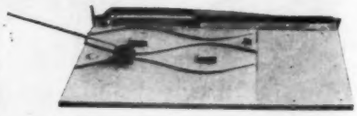

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Will save time and money in making elbows and when used in connection with a cornice brake light iron can be cut any width and length. Buy a set before your competitor does. These shears are thoroughly guaranteed to give satisfaction or no sale. Made by

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Jobbers supply at factory price, or we will ship direct, if cash accompanies the order.

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Noiseless, No Odor, No Smoke.
More Heat with Less Fuel.
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Coppers Indoors or on a Roof.

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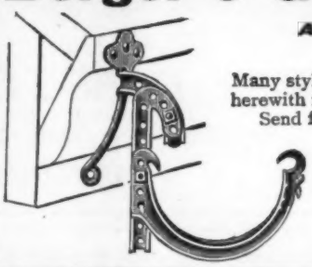

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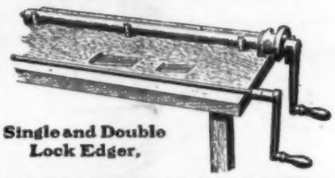

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MADE BY

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PORTABLE PUNCH No. 20

Made entirely of STEEL

Capacity ¼ inch hole in ¼ inch.
Length 38 inches, weight 16 lbs.
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are made in every conceivable variety, to suit every purse and purpose, but all of the same superior quality.

¶ Our extensive advertising creates a demand, that every progressive dealer should be able to satisfy.

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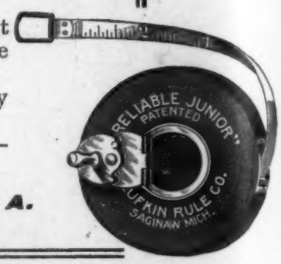

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To the practical Saw User this tells the full story of HIGHEST PERFECTION in Material, Temper, Design and Workmanship attained for the DISSTON BRAND OF SAWS.

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Pliers, Nippers, Spring Belt and Ticket Punches, Bolt Clippers, Dividers and Hardware Specialties, under the "Bernard," "Paragon," "Elm City," "Lodi," and "Excelsior" Brands.

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Pressed
Steel Shelf
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BUTT HINGES
Barn Door
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Our Planished Steel **STRAP and T HINGES** are now all made on Automatic Machinery—Every one is as true as a Die. Our **BUTTS** are unequalled in Workmanship and Finish, All our Goods Guaranteed—**BEST IN THE WORLD.** (And they cost no more.)

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A NEW PATTERN STANDARD LEVEL—Two Level Glasses, One Plumb Glass

Side glasses may be reversed at any time; all easily adjustable; all glasses in plain view from both sides; brass trimmings on both sides.

No. 31—Solid Cherry.
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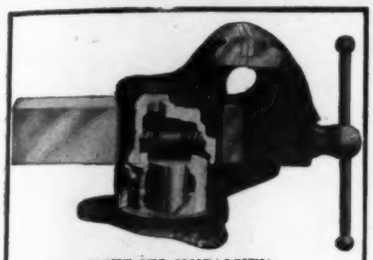

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Automatic Swivel Vise

Locks Automatically by Tightening the Jaws

Saves 20 per cent Vise Labor

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"It's all in the teeth."

Without teeth they are worthless. Try them.
Ask your jobber, or write us.

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For Rural Free Delivery

Be Just With Customers

Sell them Blick No. 3 boxes. They are big ones, 6½ x 8½ x 19 inches. Made of heavy galvanized steel. Painted green, the new government color. Same shape and color as city boxes. Have Positive-Locking Flag Signal, Automatic Latch, Watertight Quality. Every box tested, every box right, every box warranted. They will get the business. You better get them. Order now.

$5.88 per Doz.

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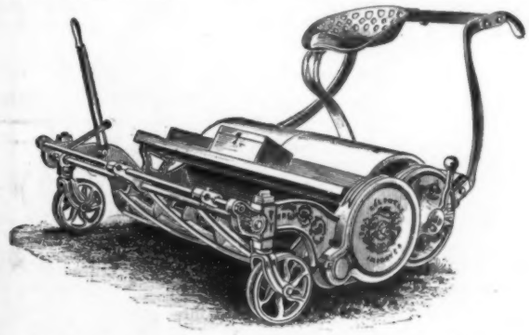
75% of the Horse Mowers in use in this country are of our make. Their popularity is due to their efficiency, durability and lightness of draft. All sizes from 25 to 40 inches in width, 4 or 6 blade reels.



Adopted by the United States Government, the park system of New York, Chicago, St. Louis and all the large cities. It is in use in more public places than any other Horse Mower made.

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Makers of Good Mowers

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"Please discontinue my ad for a tinner. I have had applications from the Atlantic to the Pacific, and also received a good man through your valuable paper."

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The Jack Frost Freezer **makes** money for you because you can sell more than any other make, and it **saves** money for your customers because it saves Ice, Time, Work—and lasts longest.

The Jack Frost Ice Cream Freezer

is multiple motion—every turn of the crank helps freeze the cream. All gearing self-lubricating and covered so no oil gets in can.

Tub made of seasoned, kiln-dried lumber that doesn't warp, shrink or rot. Can is high-grade charcoal plate throughout, cover drawn absolutely seamless. All metal parts heavily galvanized.

Ask to know more about the Jack Frost Freezer. Our proposition will interest you. Your profit on the Jack Frost is good and the freezer always "makes good", which brings the same customer back to your store to buy other goods. Write us, asking for Catalogue No. 75.

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Iwans' Voleano Revolving Chimney Top

Sizes 6 to 12 Inches.

Sold by Jobbers of Hardware and Tinners' Supplies.

Notice one of its **Strong Features:** The upward sloping opening in back of hood creates a constant upward draft, no matter how depressing the atmosphere.

You need it for some of your customers' chimneys.

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PRICE	
3½-in.	$ 50
4 "	60
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By the best workmen to be the only way to close the end of an eave trough as corrugations ARE PROOF against frost.

Order a Set of Tools TODAY from any Jobber or Tinners' Supply House.

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THAT EXCEL IN
Easy Running
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Economy
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THAT ARE
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THE "BEST MADE" because in practical use, they are convenient, compact in size, use smallest amount of ice and salt, run easily, freeze quickly, produce smoothly frozen creams or desserts with little bother and less work. We make also

MACHINE FREEZERS AND ICE BREAKERS

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The washer that is making a hit

UNEQUALED IN

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To read this advertisement. Your order next, if you please, to substantiate our every claim of superiority embodied in the

SNOW-WHITE ROTARY

Cut Showing Gearing Exposed

The proof is in the Comparison

Cut of SnowEwhite Machine.

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DOUBLE BALL BEARING. FLY WHEEL UNDER THE TUB. HIGHEST SPEED. EASIEST RUNNING. QUICKER REVERSE. FOOT POWER ATTACHMENT. TUB OPENS WHEN MACHINE IS IN FULL MOTION. FIVE YEARS' GUARANTEE. SOLD TO ONLY ONE DEALER IN EACH TOWN.

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Handy in Laundry, Kitchen and Nursery. Handy Everywhere. Each arm one piece, kiln dried hardwood, works independently.

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MADE TO ORDER FOR ALL PURPOSES.
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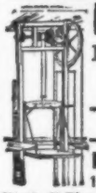

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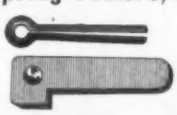

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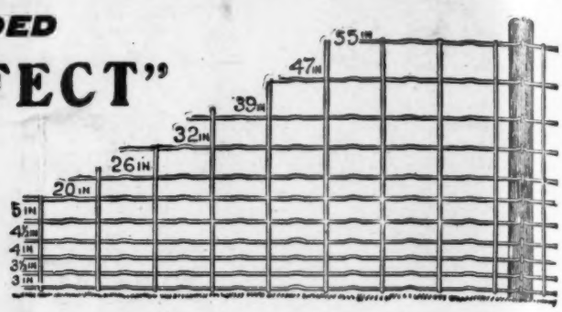
ELECTRICALLY WELDED

"PITTSBURGH PERFECT" Fences



The strongest on the market and the most satisfactory. You can't know what a really good fence is until you have tried the

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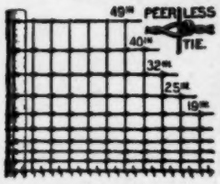
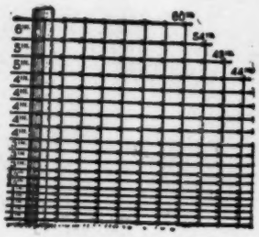
WRITE FOR OUR CATALOG TO-DAY.

Pittsburgh Steel Co., Pittsburgh, Pa.

THE DENNING FENCE





For yard and pasture has no equal. Our Peerless Cabled Fence with barb wire in the bottom turns hogs, absolutely. We beat the world on Poultry Fence. We make perfect Barb Wire. We ship mixed cars Woven Fence, Barb Wire and Nails.

Write for Catalog and Prices.

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LOCK-CORNER SHELF BOXES
For the Hardware Trade.
THE A. H. GREEN CO.,
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NEW BRIGHTON, PA., U.S.A.
MANUFACTURE
A Full Line of Horse Nails
Send for Catalogue, Prices & Samples.

We have the best Pure Copper Cable

Lightning Rods

and fixtures on the market, and to prove what we say is right, we are willing to send any firm a sample cutfit and they can look it over, and if it is not the best they have ever seen, and not satisfactory in every way, we want the whole shipment returned at our expense and it costs them nothing. We manufacture all our own goods and know just what they are, and we want every hardware dealer to write to us for prices and territory. We give a $500.00 guarantee and also one of our improved static machines.

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Maher & Son Lightning Rod Co., Preston, Iowa

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Trade Supplied at Lowest Rates. Send for Catalogue "O."

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NOTHING BETTER PRICES LOWEST WRITE TODAY

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especially with those merchants who are properly displaying their goods, and keeping their store interior fresh and prosperous in appearance.

Why not liven up your store with a new Wolverine case? This case offers high-grade workmanship and design at a moderate price ($5.00 per foot) and our "knock down" method of shipping cuts freight costs to one-third the old way. This case, of high-grade woodwork, modern and artistic in design, and with beveled plate glass top, is the biggest value on the market. No experience needed to put it together.

Wolverine "K-D" Cases

Write today for full particulars. Address Dept. C.
MICHIGAN SHOW CASE CO., 51-53 Ft. St. E., Detroit, Mich.

Revolving Cases

for Bolts, screws, etc. SAVE TIME and MONEY

A necessity for Hardware Dealers, machine shops, pattern shops and in fact any one who handles small articles. Last indefinitely. Made octagonal or square as desired; also with blank drawer fronts with label holders. Descriptive booklet sent on application. Sold by all first class Hardware Dealers.

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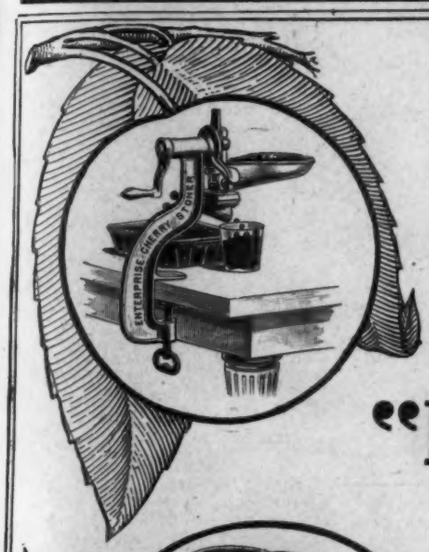
Single Geared Brake.

We manufacture a complete line of Heavy Bending Machines or Brakes for both hand or power, from 30 ins. in length and for No. 10 gauge material and lighter, up to 10 ft. in length for ¼ in. plate and lighter.

Write for Catalogue particulars.

The J. M. Robinson Mfg. Co.

Spring Grove Avenue, CINCINNATI, O.

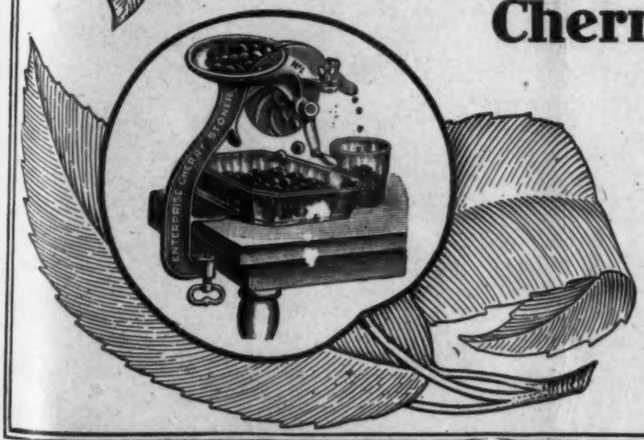


When "Cherries are Ripe"

and women are busy at their preserving kettles, you'll gain their approval—a good thing—and their trade—better still—if you can supply them promptly with an

"ENTERPRISE"

Cherry Stoner



Cherry season is short. Wise dealers have the **"Enterprise" Cherry Stoner** on their shelves in time. When a woman has her cherries ready for stoning she won't wait 'till you order it. She won't wait, either, for an **"Enterprise" Fruit Press.** When she wants it she wants it quick! She will go somewhere else if you haven't it. *Stir up the jobber.* Write to-day for our latest catalog.

The Enterprise Mfg. Co. of Pa.

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THE IMPROVED ONE-PIECE MITER

This miter is made absolutely correct, true to shape, size, and bead, and the easiest connecting slip joint. Will save your time and temper. In case your supply house cannot furnish them, send your order direct to the

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Manufacturers of Sheet Metal Specialties.

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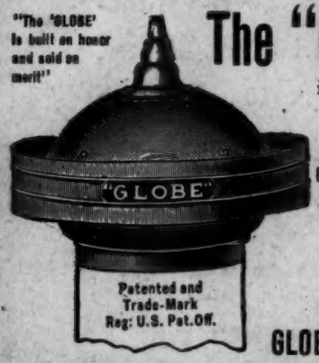

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are **guaranteed** to be absolutely soot proof. Cannot be jarred or blown from flue hole.

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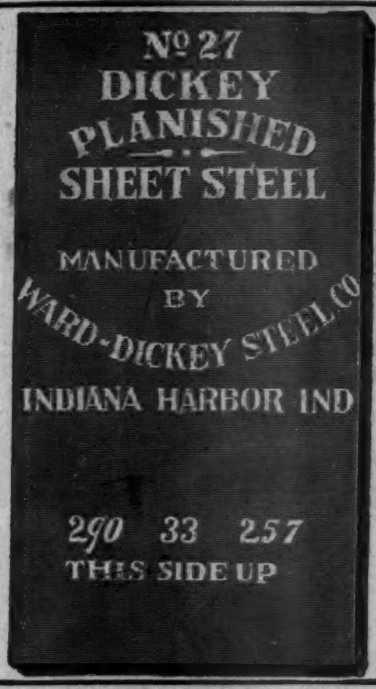

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